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SOAP

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New **SOAP PERFUMES**



OUR perfume laboratory is constantly working on new developments in perfume materials for soaps of all kinds—white or colored toilet soaps, liquid soaps, laundry and cleansing soaps.

AT the moment we are offering a particularly fine line at \$2.00 to \$3.00 per pound in these odors:

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NEW YORK

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Only
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possess these
7 VITAL FEATURES

1

Perfumes. Only the finest imported perfume essences are used in Falcon Deodorants. Pleasant-smelling . . . always in good taste . . . they remain fragrant as long as the para lasts.

2

Uniform evaporation day by day gives uniform deodorizing results that can be relied upon. Absolutely solid, and free from air pockets, Falcon Deodorants evaporate more slowly.

3

Firm . . . clean . . . compact are Falcon Deodorants. Molded cold under tons of pressure, they never crumble or exude oil. Made correctly, they give long-lasting, uniform deodorization.

4

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5

Attractive Packaging. Individually wrapped in cellophane and packed in air-tight containers, Falcon Deodorants hold the customer's eye . . . a feature that makes them easier to sell.

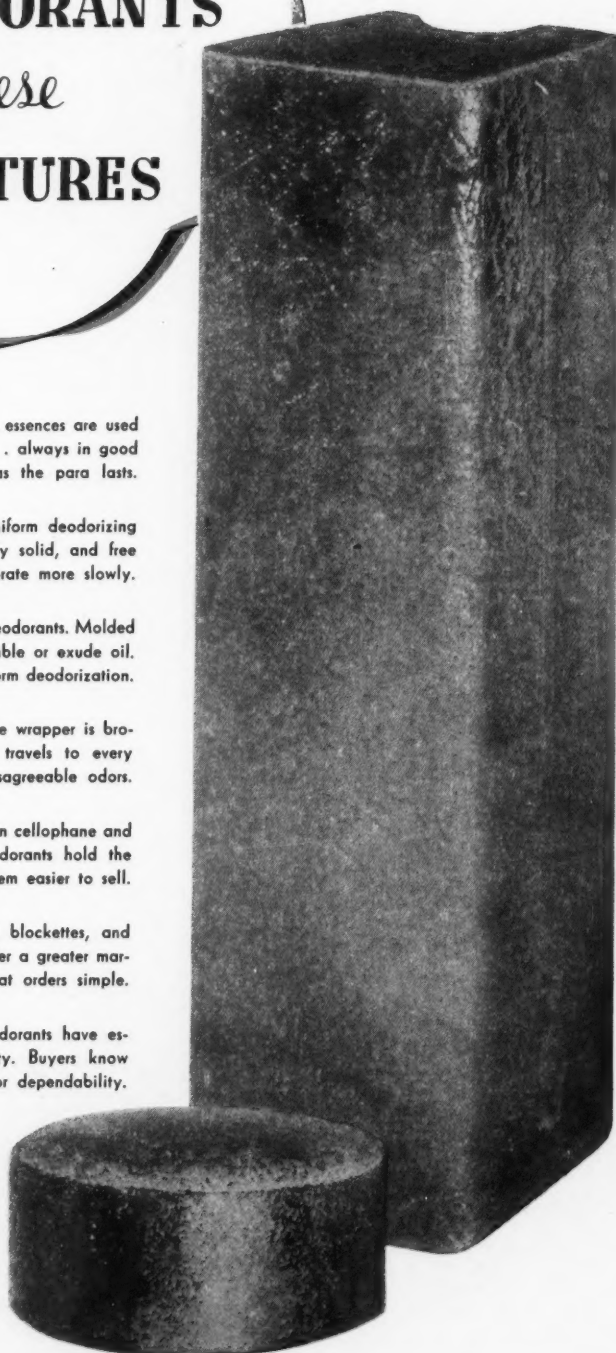
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Priced no higher than ordinary blocs and blockettes, and unmatched in quality, Falcon Deodorants offer a greater margin of profit to the jobber . . . make repeat orders simple.

7

Prestige. Used the nation over, Falcon Deodorants have established an enviable reputation for quality. Buyers know that the name "Falcon" is full guarantee for dependability.

Falcon Blocs and Blockettes can be had in the following odors: Cedar, Lilac or Rose. New descriptive price list sent on request. Write.



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 HUNTINGTON INDIANA

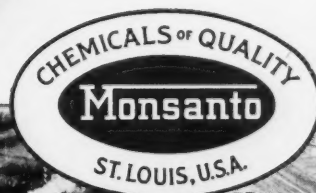
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WE are pleased to announce the merger of The Swann Corporation into Monsanto. The merged company, through its operating subsidiaries, has for many years been a leading producer of Phosphoric Acid and Phosphates. The operating companies will now function as subsidiaries of Monsanto.

We welcome this opportunity to enlarge our services to both old and new friends in consuming industries.

Monsanto Chemical Company
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FINE CHEMICALS DIVISION, WILMINGTON, DEL.

AROMATICS FOR SOAP

SOAP

Reg. U. S. Patent Office

Volume XI
Number 7

July, 1935



SANITARY Products Section, which is included as a department of every issue of SOAP, begins on page 71. Production Section begins on page 59.

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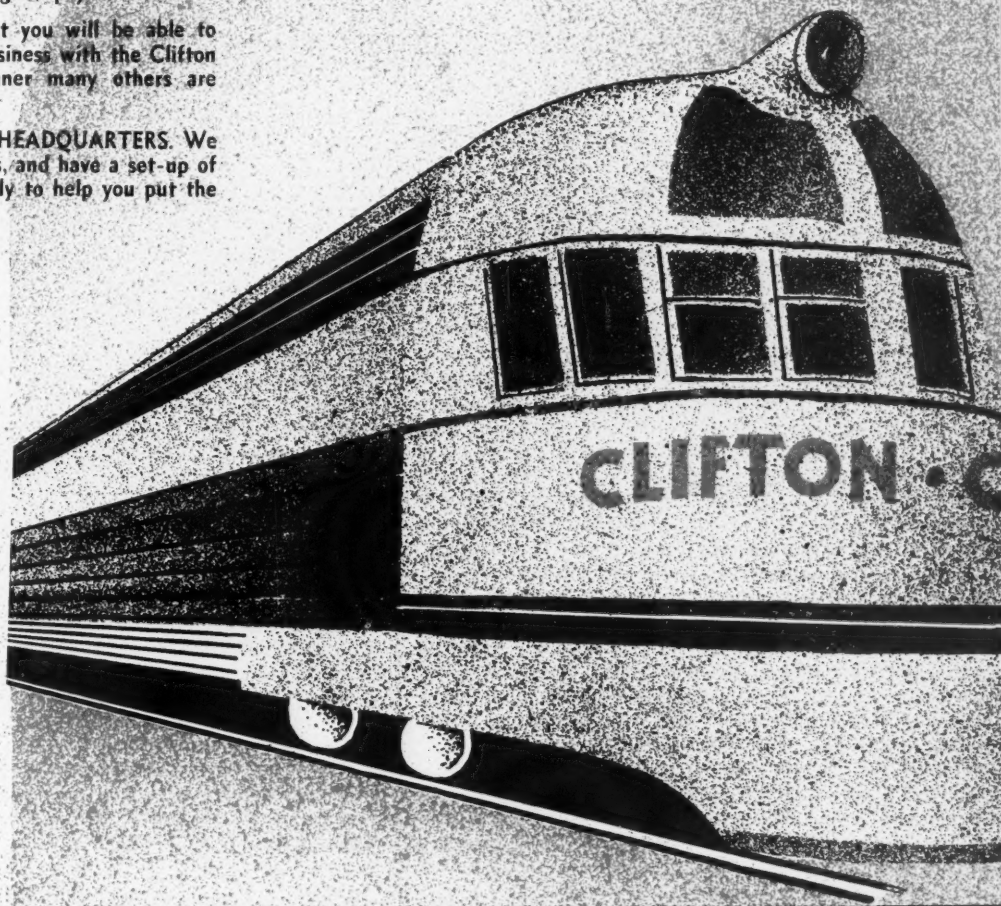
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Remember:—CLIFTON is HEADQUARTERS. We are the actual manufacturers, and have a set-up of attractive imprint labels ready to help you put the Line across.



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- ☐ Foamwel Liquid Soap
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- ☐ Metal Polish
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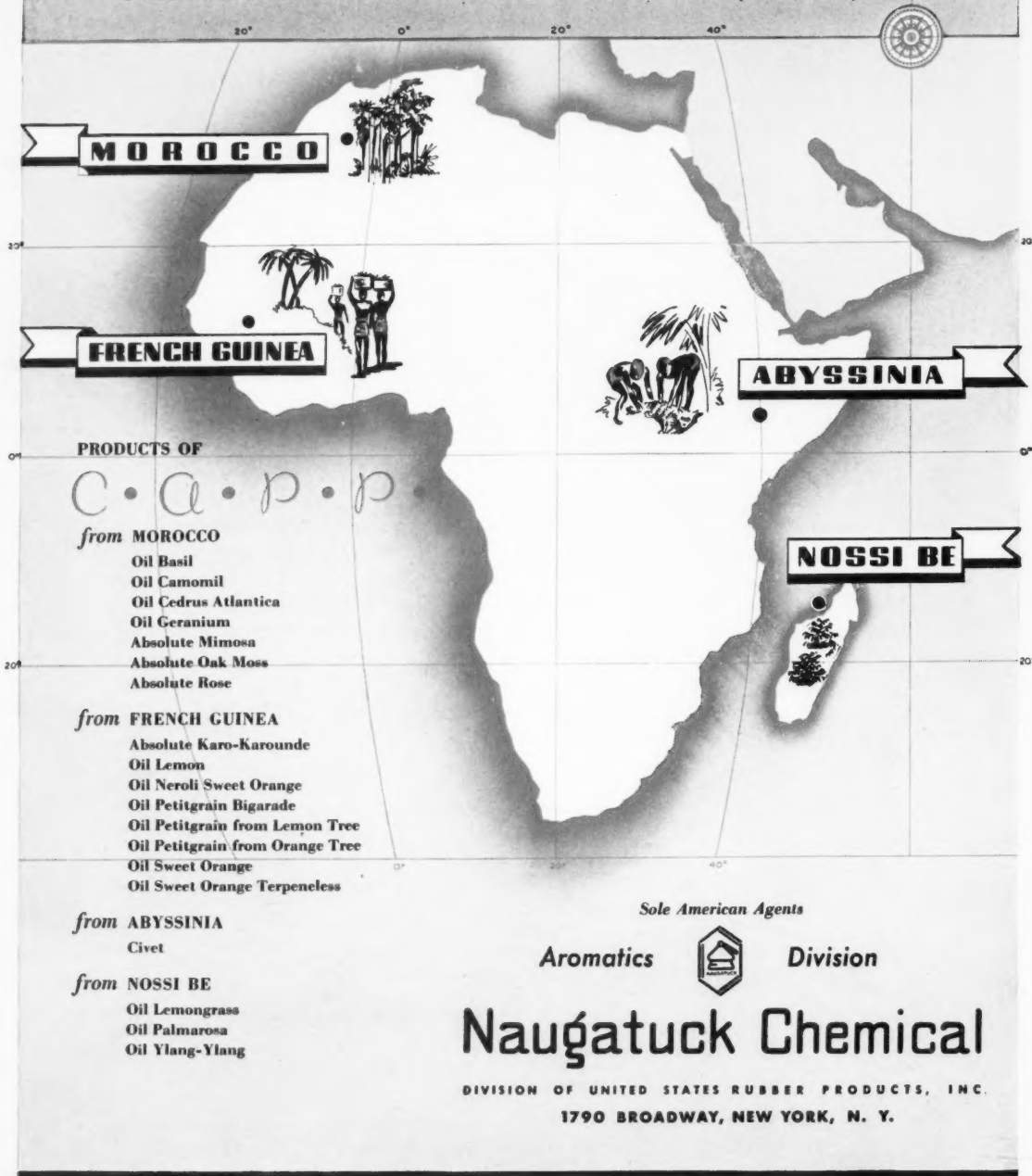
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DIVISION OF UNITED STATES RUBBER PRODUCTS, INC.
1790 BROADWAY, NEW YORK, N. Y.



WELL conceived, well executed; these containers by Continental reflect the merchandising sense of an organization skilled in "packaging to sell". Continental's coast-to-coast service, available to any manufacturer, embraces the three basic merchandising ingredients — research, design and package development.

CONTINENTAL CAN COMPANY

• YARMOR CLEANING NEWS •



When properly made, disinfectants containing Yarmor Steam-distilled Pine Oil destroy typhoid, scarlet fever, diphtheria, cholera, and other disease-producing germs. They are not toxic to human beings, nor are they corrosive or caustic. They are efficient and pleasant to use.



For heavy cleaning work, such as the removal of grease and grime from garage and factory floors, powder scrubbing soaps containing Yarmor are most efficient and economical. They clean thoroughly and leave a fragrant, piney odor.



Liquid scrubbing soaps containing Yarmor Pine Oil are recommended for cleaning the finest surfaces. These soaps loosen and surround dirt and grease particles which then can be removed easily by rubbing and rinsing.



Besides removing grease, grime, and embedded dirt, properly compounded liquid hand soaps containing Yarmor promote healing. They relieve chapped hands, minor cuts, and abrasions.



Tarnish and grease films are removed easily and quickly by the use of metal polish containing

Yarmor Pine Oil. These polishes spread freely and then wipe easily leaving an excellent finish.



Where it is desirable to mask objectionable odors, deodorants containing Yarmor are pleasingly efficient. These deodorants cover undesirable odors and leave the clean, sweet outdoor fragrance of pine forests.



Yarmor Pine Oil is an effective and valuable ingredient in cattle sprays because it is an excellent repellent and activator of toxic ingredients. These sprays can be used before cattle are let out in the field so that they will not be annoyed while ranging for food.

Manufacturers and consumers will profit by investigating the advantages to be obtained by the use of Yarmor. Return the coupon below for further information.

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INCORPORATED

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Branch Offices: Chicago • New York • St. Louis
Philadelphia • Salt Lake City • San Francisco



Hercules Powder Co., 961 Market St., Wilmington, Delaware

Please send information about the value of Yarmor in (check products in which you are interested):
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The disinfectant manufacturer from whom I buy is

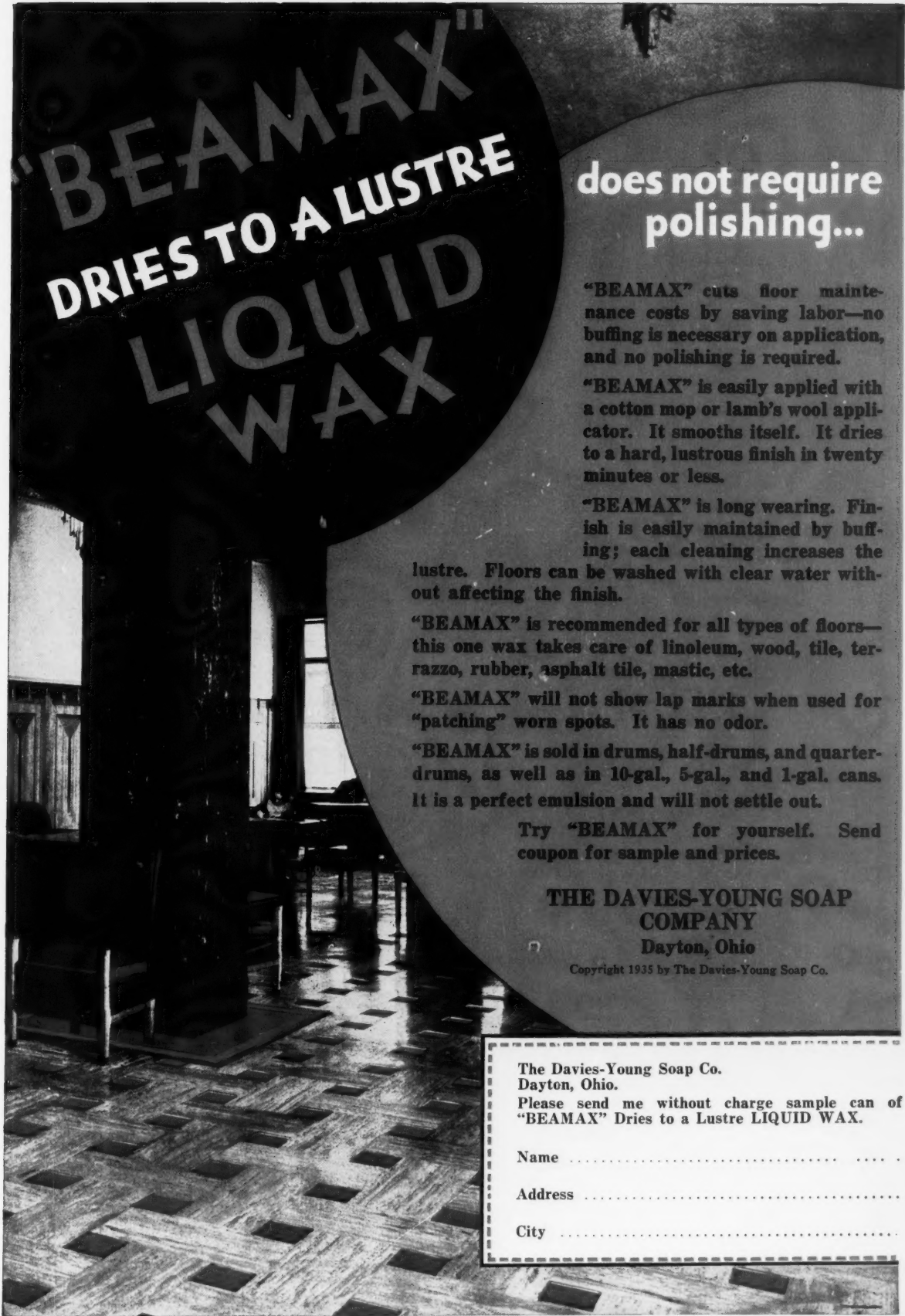
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Company.....

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City..... State.....

C. Q-51



"BEAMAX" DRIES TO A LUSTRE LIQUID WAX

**does not require
polishing...**

"BEAMAX" cuts floor maintenance costs by saving labor—no buffing is necessary on application, and no polishing is required.

"BEAMAX" is easily applied with a cotton mop or lamb's wool applicator. It smooths itself. It dries to a hard, lustrous finish in twenty minutes or less.

"BEAMAX" is long wearing. Finish is easily maintained by buffing; each cleaning increases the lustre. Floors can be washed with clear water without affecting the finish.

"BEAMAX" is recommended for all types of floors—this one wax takes care of linoleum, wood, tile, terrazzo, rubber, asphalt tile, mastic, etc.

"BEAMAX" will not show lap marks when used for "patching" worn spots. It has no odor.

"BEAMAX" is sold in drums, half-drums, and quarter-drums, as well as in 10-gal., 5-gal., and 1-gal. cans. It is a perfect emulsion and will not settle out.

Try "BEAMAX" for yourself. Send coupon for sample and prices.

**THE DAVIES-YOUNG SOAP
COMPANY**
Dayton, Ohio

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The Davies-Young Soap Co.
Dayton, Ohio.

Please send me without charge sample can of
"BEAMAX" Dries to a Lustre LIQUID WAX.

Name

Address

City



**ESSENTIAL OILS
SYNTHETIC AROMATICS
COMPOUNDED PERFUME BASES**
For the Soap and Insecticide Industries

We specialize in odor compounds

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**Soaps, Shampoos, Sprays, Insecticides
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formaldehyde odors.



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"The integrity of the house is reflected in the quality of its products".



A speedy, economical packaging line

The Morrison Company of Philadelphia packages a wide variety of powdered puddings, pie fillings and ice cream preparations on Stokes & Smith equipment. Three attendants produce a continuous stream of tightly sealed, non-sifting, bag-lined cartons.

The cartons are hand fed to the carton sealer, which seals the bottom flaps and carries them to the Universal Fillers. There attendants fill the bags and place them in the conveyed cartons, which then move on to the Sealer. There the open top of the bag is automatically sealed in with the top flaps of the carton and the packages are conveyed under pressure to the shipping table.

Similar semi-automatic or fully automatic Stokes & Smith equipment with automatic carton feed, bag inserting and automatic filling, for the production of sixty packages per minute is also available. An S & S Packaging Engineer will gladly suggest the proper equipment for your particular needs. Write for information.

FOR PRODUCTION OF 15 TO 60 PER MINUTE

STOKES & SMITH CO

PACKAGING MACHINERY

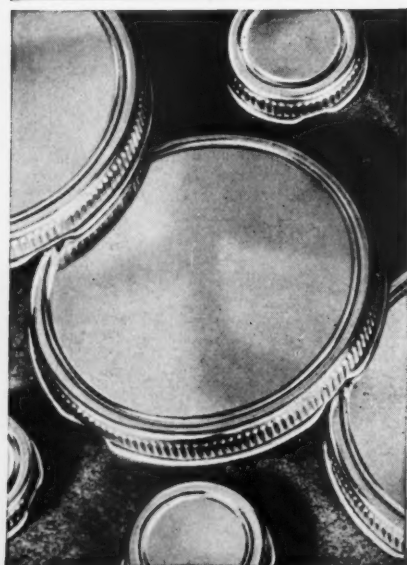
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SOAPS IN CONTAINERS NEED GOOD CLOSURES



IN the nature of things, any soap is a slippery article. Hence liquid soaps, shampoos and other soap products that are packed in bottles call for a closure that sits tightly on the container, that prevents them from oozing out and rendering the package messy, unsightly and unsalable. Anchor Amerseal Caps give an unusually tight, sure seal and at the same time provide a welcome ease in removal and replacement for the consumer.

Those other soap products in the form of paste—mechanics' hand soap, auto soaps, shaving creams, etc.—possess added sales appeal and attractiveness when packed in glass jars. Here, too, Anchor Amerseal Caps provide the requisite efficiency in sealing to protect them against drying out or losing their moist consistency . . . as well as the same convenience for the consumer mentioned above.

If space permitted, we could go on and explain how the seal of the Anchor Amerseal Cap is effected and the mechanical features that make for simple, easy application and removal. But it would be more satisfactory, we believe, for you to get the complete story as described in our booklet, "The Anchor Amerseal Cap." Write for a copy.

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ANCHOR-CAPSTAN

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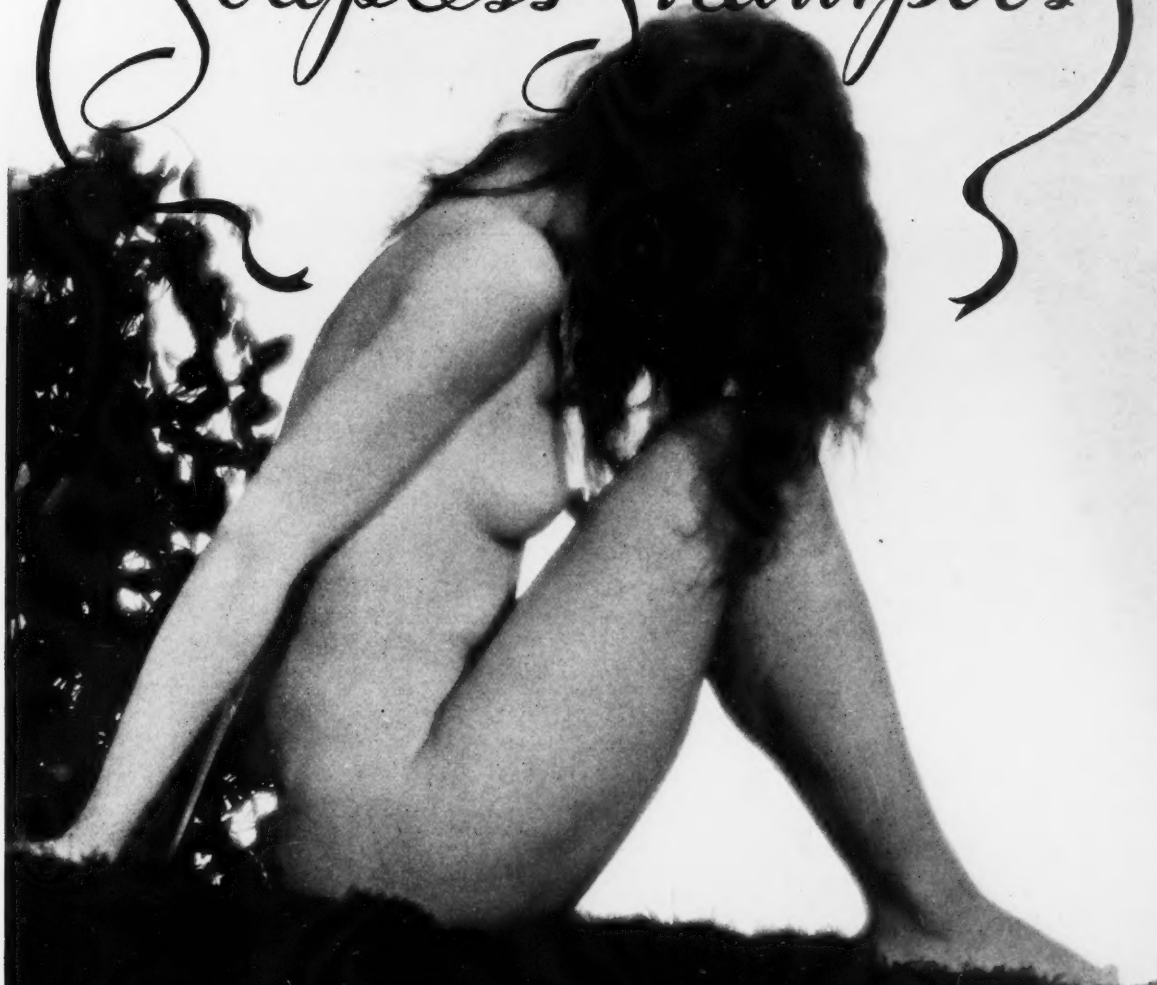
★ SEALING EQUIPMENT

★ RESEARCH ★ PACKAGE DESIGN

5 STAR SERVICE

Anchor Amerseals

PERFUMES FOR Soapless Shampoos



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IN these four fragrances, Felton has developed perfumes which are fully effective in neutralizing the disagreeable odor of sulphanated oils and will impart to your finished product delightful fragrance at minimum cost.

WRITE FOR SAMPLES AND QUOTATIONS

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Executive Offices and Factory
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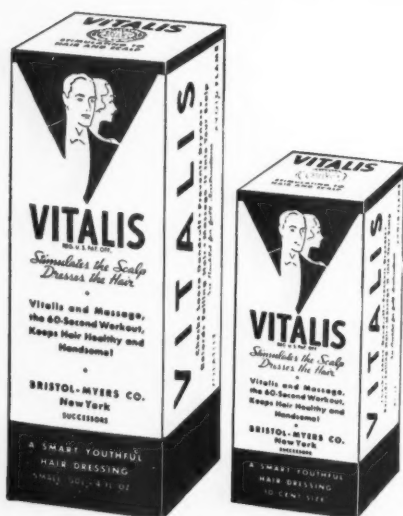
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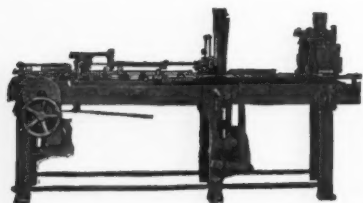
Los Angeles, Calif.
515 So. Fairfax Ave.

CONSTANT MOTION CARTONER


Packages Two Sizes of Vitalis for Bristol-Myers



The Constant Motion Carton to which Mr. Studdiford's letter refers is the fourth delivered to Bristol-Myers this year and the twentieth since 1924. It was installed April 8th. It packages 1 and 4-oz. Vitalis bottles, with circulars, in sealed cartons. Capacity 120 per minute.



Mr. Studdiford, Assistant Production Manager, Tells How He Likes It in the Letter Below.



BRISTOL-MYERS COMPANY

GENERAL OFFICES
75 WEST STREET
NEW YORK CITY

FACTORY AND LABORATORIES
HILLSIDE
NEW JERSEY

MANUFACTURING CHEMISTS

NEW YORK
Hillside, N.J.
May 9, 1935.

CABLE ADDRESS
MYTOL-NEW YORK
CODE A B C 574

LONDON
SYDNEY
MONTREAL
SAN FRANCISCO
DALLAS
CHICAGO

R.A. Jones & Company,
Cincinnati, Ohio.

Gentlemen:

In reply to your letter of May 6, we wish to advise that the machine for cartoning 1 and 4 oz Vitalis bottles which you built for us, on the second day's operation, attained practically the maximum production possible. Since then we have run it on both sizes and have found that it fills-the-bill perfectly. As far as change-over from one size to another is concerned, this is accomplished in about one and three-quarter hours by one man.

The new style carton loader seems to operate very smoothly and the whole machine seems to function with very little effort.

We have not completed the new line-up as yet and so we are quite a way's below the speed which we hope to attain in the future.

Yours very truly,
BRISTOL-MYERS COMPANY,
R.D. Studdiford
A.D. Studdiford
Ass't Production Manager.

The Standardized Constant Motion Carton packages soap, shaving cream, shampoo, insecticides, pills, tablets, sanitaped aspirin tablets, cheese, frozen fish, cakes, hops, whiskey, facial tissue, safety razor blades, pencils, toy pistol caps, crayon, kodak films, rubber heels, plug tobacco, bunion pads, cosmetics, dentifrice, sealing wax, etc., in bottles, jars, tins or collapsible tubes. It folds direction sheets and inserts them and corrugated liners with the load.

R. A. JONES & COMPANY, INC.
P. O. BOX 485 CINCINNATI, OHIO

SOAP

Volume Eleven

Number Seven

As the Editor Sees It

THE decline in coconut oil and copra prices over the past month has been quite spectacular. In two months, coconut oil prices have dropped off some two cents. Since the first of June, buying has been negligible, and to this chiefly is credited the decline. Apparent interest in the market has lagged to an unusual degree. In evident sympathy, tallow prices are off about a half cent. In the case of neither fat, has the basic market situation changed to a point which warrants a pronounced shrinkage in price. Nevertheless, prices are down,—and if memory serves us, it was in a similar situation that American buyers awakened one fine morning not so long ago to find that foreign buyers had beaten them to market. A little real buying, we suspect, would very materially change the complexion of the market.

— • —

FROM a soap maker seeking employment, we have received a letter which we believe is worthy of comment. He points out the absolute lack of consideration on the part of some firms when in the process of hiring a soap maker or other plant employe. Stalling a prospective employe along for several months before telling him definitely that the job is closed, not returning original references to applicants,—in some cases ignoring later requests for their return,—playing one prospect for the position against another to beat down the rate of pay, and offering apprentice wages to experienced men.

To us, this type of complaint is not new. We have received them on several occasions. They appear to be confined to a few of the smaller and lesser known manufacturers. We have never, that we can remember, received a com-

plaint from a worker naming any prominent soap company. Nevertheless, even if there are only scattered injustices to men seeking employment, there is no excuse for them. Common courtesy and decency, which costs nothing, should dictate treatment which the prospective employer would himself like to receive. If a job is filled and an applicant inquires, let him know definitely so that he may waste no further time. Return all references to all applicants. Unquestionably, they will need them elsewhere. And as for offering wage rates to experienced soap makers which have been reported to us,—we would hardly have the crust to offer them to a factory sweep-out boy,—let it be pointed out that this is one of the basic causes of labor trouble. It is likewise the cause of one of the greatest of uncharted plant expenses,—heavy labor turnover.

We do not attempt to hold a candle for labor in the soap industry or elsewhere. We admit that our leanings are very distinctly to the other side,—leanings which come from twenty years of observing the picture distinterestedly. But, on the other hand, we have no patience with downright rotten treatment of skilled men seeking positions simply because these men are out of jobs.

— • —

TRADING in tallow futures on the New York Produce Exchange is now an established fact. Tallow, like its prominent cousin, cotton oil, the king of edible fats, forthwith becomes a commodity of greater importance, and takes on added dignity. To the soap industry, the establishment of a practical exchange market and a sales contract with logical rules and specifications, should be altogether welcome. Demand and supply in tallow should be suf-

ficient to justify free trading. Enough operators exist to prevent the market from becoming controlled. There is a practical deliverable grade of tallow. The tallow market now offers soapers an opportunity to hedge,—an opportunity which has not existed since cotton oil became predominantly an edible commodity rather than an industrial oil. For those who are interested in studying the sales contract and specifications, we believe that the Produce Exchange will be glad to send complete details.

— • —

DURING the past few weeks, we have noted a few announcements of price advances by soap manufacturers. These increases, however, have been small and still leave soap prices generally out of line with material costs. Three manufacturers of soap specialties have indicated to us that although their tonnage for the first six months of 1935 has been ahead of 1934, their profits have dwindled to an alarming degree. And are soap consumers pleased that higher cost of raw materials has not been passed on to them except in a comparatively small part? We can state quite confidently that they are not. Some give no thought to the matter. Others,—taking it for granted that the soap manufacturer is making a good profit today,—are of the opinion that back in 1933 and 1934, they must have been grossly overcharged on their soap purchases. They point to the ratio of costs to selling prices then and now,—and ask how come? And once again, we want to point out that the buyer who is being "taken care of" today, will not hesitate to shift his business to a competitor tomorrow if circumstances change. Soap prices which are not based on current replacement costs in a higher raw material market, cannot return a profit in the long run. Why greater efforts are not being made to readjust prices is beyond us.

— • —

THE latest emanation from Consumers' Research, that organization which single handed protects the American public from the grasping manufacturer of soaps, drugs, cosmetics, and the like, is the much-discussed book, "Counterfeits". The book is by the same authors as "100,000,000 Guinea Pigs", Kallet and Schlink, and it contains almost as much pseudo-scientific nonsense, as well as economic errors which the average school child should readily recognize. Nevertheless, the doctrine which it preaches,—that all branded and packaged products are

simple items grossly overpriced and whose popularity springs from clever but untruthful advertising,—is a popular one today among those "who think they think." In spite of the numerous incorrect and invariably vague statements, the book will impress the ignorant.

Among some of the outstanding features which are right up our alley, the recommendations to the general public that it make its own fly spray and its own floor wax, are indeed gems. And the simplicity with which these products can be made at home is truly startling. But is the public able to recognize this kind of information as sheer rubbish? We think not,—and therein lies the danger of the book, the inability of the average reader to distinguish between technical fact and nonsense. In these two cases, the authors put the brand of ignorance on themselves. As for going into detail here to show how and why they are wrong,—what's the use? Every manufacturer knows the answer.

Throughout, the book is mostly innuendo, "ifs and buts",—few are the straight statements of fact in three-word sentences. Like its predecessors, it undertakes to discuss scientific subjects without scientific knowledge or fact. We still believe that there "ought to be a law".

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ALMOST simultaneously, some two million packages of cleaning powders were distributed recently in a large middle-west city in house-to-house sampling campaigns. Three competing products undertook to "sample" the same market at the same time, one distributing a million packages and the other two a half-million each. We cannot believe that such extensive operations do not interfere temporarily with regular sales, and as a result, arouse the ire of local retailers. May be it is good advertising, but we have very serious doubts.

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APROMINENT middle-western newspaper has surveyed the American market for shaving cream and comes to the conclusion that about twelve million dollars worth of this commodity can be sold in the United States each year. This is a lot of shaving cream,—at three tubes for a dollar retail, it amounts to some thirty-six million tubes per annum. This is almost as many male adults as there are in the country. Counting out members of the House of David and other sects who take their whiskers long and uncut, it raises the per capita consumption quite materially.

Twenty years in soap manufacture, the last fourteen of which have been spent at the head of his own company, is the record of the author. A practical soap maker and executive, he is also a chemical engineer with a degree from Brooklyn Polytechnic Institute.



POWDERED SOAPS

By HERBERT KRANICH

President, Kranich Soap Company

BEFORE going into a discussion of the subject, it may be well to explain exactly what is meant by the term "powdered soap." There are innumerable types of soap products on the market, that is products containing some soap, which appear in the form of powders or granules. Powdered soap, however, as the term is used in the trade, means a practically pure soap of one kind or another ground to a powder. These soaps contain a very small percentage of moisture and are composed otherwise wholly of anhydrous soap. They are not to be confused with commercial soap powders which contain only ten, fifteen, or twenty per cent of soap and the rest alkali salts and moisture. A high grade powdered soap is about the purest form of soap available commercially today.

Powdered soaps as sold at present fall into two general classes, the higher quality soaps designed to go into medicinal and cosmetic products which run about 98 to 99 per cent anhydrous soap and very low in free alkali, and the powdered soaps for laundry purposes which run 88 to 94 per cent anhydrous soap. The first mentioned class will be discussed here principally. This class comprises four types which are most important commercially,—1. tallow-coconut; 2. straight coconut; 3. straight palm; 4. straight olive castile.

There are four grades of powdered soaps generally, that is four degrees of fineness of the powder. The finest is termed "fine," and of this grade, 95 per cent should pass through a 200 mesh sieve. The next grade is medium which covers a mesh usually between 110 and 150. The third grade of powder is coarse which runs between 80 and 110 mesh. The other grade is granulated which is in reality not a powder at all, this running from 10 to 20 mesh and containing not more than 5 per cent of "fines," which latter gives a dusty appearance to the granular soap.

Powdered tallow-coconut oil soap, frequently referred

to as "white neutral soap," is perhaps the type which enjoys the widest sale. The quality of the powder naturally depends to a great extent on the quality of the fats used and on the care in manufacture. The higher grade powders find wide use in cosmetics, dentifrices, powdered hand soaps, and similar uses. These usually run 99 per cent anhydrous soap with free alkali under 0.2 per cent. Alcohol insoluble in such soaps must be less than one per cent. Then there are the coconut-tallow laundry soaps in powdered form. These are naturally made from less expensive ingredients and run about 88 to 95 per cent anhydrous soap. They find uses in laundry compounds and specialties, are added in small percentages to cheap detergents, and comprise from one to five per cent of various types of abrasive cleansers. The Government has a specification for powdered laundry soap which calls for 93 per cent soap content, alcohol insoluble not over 3 per cent, free alkali not over 0.5 per cent, and a titre not under 39 C.

Powdered straight coconut oil soap is distinctly a specialty in both its manufacture and its uses. It is made in the various degrees of fineness and runs about 98 per cent anhydrous. Its uses are chiefly dependent on its very foamy, abundant lather, and its ability to lather in hard, salt, or any other kind of water. Upholstery and rug cleaners in which a high foam is desirable with the minimum amount of water present to prevent the wetting of the fabric to as great an extent as possible, use straight coconut powders in most cases. Where a powdered shampoo, for example, does not lather well normally, powdered coconut oil soap is the common product added to boost up the lather. It is used in cosmetics, henna packs, etc., to give foam. Small quantities of it are sometimes added to powdered insecticides which are to be applied as emulsions. It makes the insecticides "stick" and acts as a very effective spreader even when used in very small percentages. All in all, the ready foaming characteristic of the sodium laurate in pow-

dered coconut soap is the chief feature which determines its uses.

Palm oil powdered soaps find a fairly wide use, both straight and mixed with other fat bases. They are made both plain and bleached, the unbleached powdered soap having a rich, creamy, natural palm oil color which is desired by some users. The powder should have a violet-like odor which is characteristic of palm oil soaps. Palm oil powders find a considerable use in powdered cleansers which must be free of animal fats, and are frequently specified in Kosher cleansers. Frequently, they are mixed with coconut powder in these products. The palm oil powders also find their way into tooth paste and powders, some preferring them to a "white neutral" and to castile powders for the purpose. In a limited number of cases, they are also used in certain high grade cleansers. Palm oil powders, like coconut, should run about 98 per cent anhydrous.

POWDERED olive oil castile soap is perhaps the oldest form of powdered soap and is still one of the most important types. First of all, it is the only grade mentioned in the U.S.P. and as such must be made from pure olive oil to meet these requirements. Castile powders find their way into a wider range of products than other powdered soaps. Of course, a good proportion goes into tooth paste and powder, and to the pharmaceutical trade. It also is used quite extensively by the Government for testing the hardness of water. Straight castile powdered shampoos are well known on the market, although they are sometimes fortified by a percentage of coconut powder to make them lather more freely, especially when sold in the hard water regions. Some uses of castile powders are little known,—such as in wire drawing, in shoe polishes, in the baking industry for topping off holland rusk and coffee cake, in snuff manufacture, and for giving "slip" to playing cards. As an emulsifying agent in hand lotions, castile powder finds a use, as well as going into mascara and various and sundry suppositories. For the numerous castile soap solutions and jells, powdered castile is the starting point.

This about lists the chief commercial grades of pure powdered soap. There are others, but they are of small importance. For example, there is some straight powdered tallow soap manufactured, but it is small in quantity. There are various "trick" detergents which are mostly straight powdered soaps, but these are not many. One of this class is a low titre cold water laundry powder for special laundry work which is made from fifty per cent each of coconut oil and red oil.

THE detailed manufacturing procedure for powdered soaps is one which time and experience alone can perfect. The numerous troubles to which powdered soaps are subject, owing chiefly to their finely divided physical character, makes unusual care in every step of their manufacture absolutely essential. The first step, of course, is to purify the oils and fats prior to saponification. They must be free of iron, lime, and especially

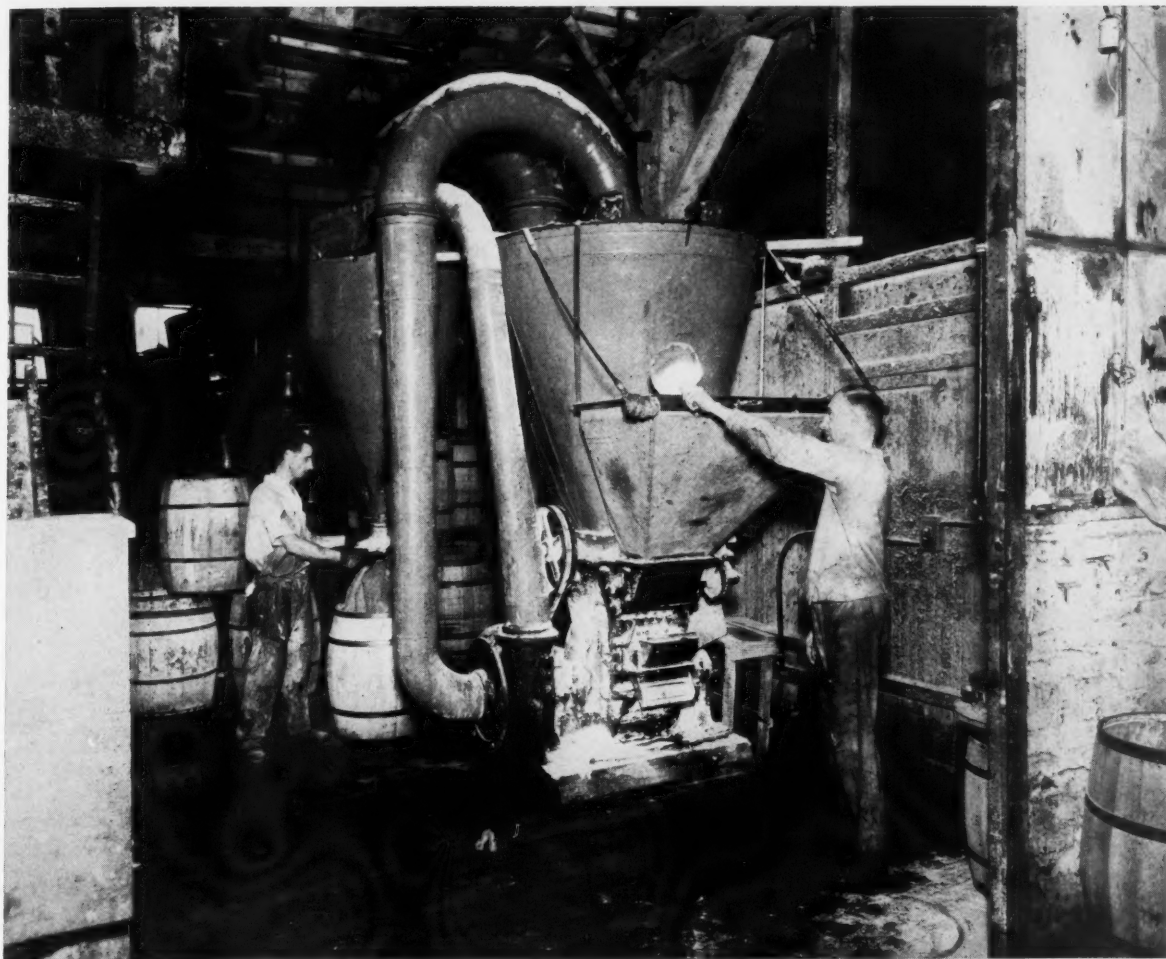
albuminous materials. The soap is boiled for two days with not less than 0.4 per cent excess lye strength, and the water content of the kettle must be held carefully within rather narrow limits, not over 35 per cent and not under 30 per cent. It seems that this inhibits the formation of acid soaps, and limits the percentage of mono- and diglycerides in the finished soap as unsaponified matter. This apparently has a rather close connection with the later developments of rancidity.

The soap is not grained on salt or lye. It is finished with 0.4 per cent alkali, boiled high in the kettle and allowed to settle. The settle must be thin. After two days settling, glycerine and colored impurities are in the bottom layer. The percentage of neat soap should not be less than 80 per cent. The niger contains the acid soaps and hydrolyzed soaps. The neat soap is also at the point where its content of true basic soap is at the maximum. The soap is framed and the free alkali should not be above 0.15 to 0.2 per cent. The frames are stripped and the soap cut to bars and put away to age. The longer the aging, the better the finished powdered soap. Experience has shown that the use of a chilling roll and continuous dryer just does not work out in manufacturing a base for powdered soap. Apparently the sudden chilling disturbs the equilibrium in the soap and gives acid soaps. At any rate, suddenly chilled soap is very prone to later rancidity when in the form of a powder.

The drying of the soap must be a slow operation to produce the best powder. The moisture content is brought down from about 30 per cent to 12 by recirculation of warm air at a temperature anywhere between 28 and 40 C. This temperature is slowly increased to 90°—100° C. during the last two or three hours of drying. The higher temperature at the end drives off considerable residual glycerine in addition to moisture. Soaps of higher titre can be dried to below 2 per cent moisture in a 12-hour cycle, while the lower titre soaps require 24 hours. The rate of drying depends on the condition and size of the chips, the melting point of the soap and the outside atmospheric conditions. By shredding the bars through a special plodder with very fine openings, and laying the spaghetti-like shreds in trays, drying time can be cut to about one-third, and with greater uniformity over the chips.

Care in drying must be taken to avoid too quick heating which causes melting of the chips or shreds. And again, when the soap is dry, cool dry air must be passed over them until the temperature is down to 30° C. They should then be put in barrels and allowed to cool further slowly in the open air. Under no circumstances should they be dumped in large quantities into a hopper or storage bin, as under these conditions they seem to reabsorb moisture quickly.

The milling comes next. A chaser mill is best for fine powder, and a hammer mill for coarse powder. For fine powder, the maximum production is not over 100 pounds per hour per mill or 200 mesh. For medium powder, it is about 400 pounds per hour and for coarse,



The milling of fine powdered soap is a tedious and costly operation if it is conducted properly.

700 pounds per hour. It is particularly noteworthy that in milling, care must be exercised not to overfeed, as in a hammer mill, the heat of friction will raise the temperature above 50° C. which has a very pronounced effect on later stability against rancidity. In hot weather, the rate of grinding is necessarily slower. In warm weather, the chips are less brittle than in cool, and with a softer chip, the grind is considerably slower.

The cost of grinding will of course vary widely according to the conditions and equipment in which it is carried on. The same is true of drying. However, in the case of high grade pure powdered soaps, both operations are of necessity more expensive than they might be were it possible to produce these soaps in the proper quality on a large scale production line. However, the quality of the finished powder, its stability, and its ability to withstand rancidity quite obviously depend on the care with which the manufacturing is carried on. This care involves manufacture in comparatively small batches. For drying a high titre soap ready for milling, the cost is approximately $1\frac{3}{4}$ c per pound. For a low titre soap, it is quite some higher, averaging about $2\frac{1}{2}$ c per pound. The grinding operation cost varies from 2c per pound to $3\frac{1}{2}$ c. This is according to the fineness of the powder

and according to the season and temperature, fine powders and hot weather raising the cost.

The packaging and shipping of powdered soaps present a number of problems. Ordinarily, it is shipped in sugar barrels of 150 to 200 pounds each, in fibre cases, fibre drums, or wooden boxes of 25, 50 and 100 pounds, and in one and five pound paper cartons. In the latter, care must be taken that the carton paper is not sized with glue or casein, as these seem to contaminate the powdered soap readily. Tin cans should never be used for packaging powdered soap. They will give a musty odor to the soap. In fact, no air-tight container should be used for powdered soap, a container which permits of a regular interchange of air with the outside atmosphere,—and consequently an interchange of moisture between air and soap,—is imperative if the quality of the finished soap is to be retained, and rancidity and darkening due to spontaneous heating is to be avoided. In fact, as a general rule, especially in castile powder, the larger packages are to be avoided, the smaller boxes and porous drums being most suitable. In any package of powdered soap, spontaneous heating in the center of the mass is very common. This seems to be greater if the moisture

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The newest in shaving soap packaging comes from England. The old-time cake of hard shaving soap glorified by two English manufacturers! With improved presentation, the shaving cake may again come into its own. The packages and the brush handles are of Bakelite.



NEW PRODUCTS

A Few Hints on Their Development

By RALPH H. AUCH

Chief Chemist, Zanol Products Co.

EVERYONE has his own ideas as to perfume, but a few comments may not be amiss. The small fellow is perhaps safest if he trails the procession and puts lilac in his shaving soap, rose in his toilet cream, benzaldehyde in his massage cream, peppermint in his tooth paste, wintergreen or cedar in his insecticide, and so on. Or he may, if he elects, put a duplication or close approximation of a leader's odor in a similar or competitive product. The big fellow may want to do some pioneering. He may step off the beaten path with a new and different odor, something out of the ordinary.

Large or small, if he manufactures a line of products and develops a new one, it is usually smart to incorporate the same odor that the rest of his line carries. Thus, the new-comer in the line becomes a member of the family and is immediately identified as such.

That an odor must be stable is as obvious as the above, yet some are quite fugitive. Ten nationally advertised face powders were held for a protracted period and only one retained its odor satisfactorily. Three held fairly well, three developed a characteristic earthy odor and the other two smelled largely of the gummy or resinous fixatives. As for soap, if the interval between kettle or amalgamator and the bath-tub is too long, many a manufacturer becomes sheepish about acknowledging the soap as his own.

The most common fault is over-perfuming. Milady who dabs on an exquisite, costly perfume at the completion of her toilette is not so keen about the hang-over odor from her soap, or her dusting powder, make-up, or moth cake, for that matter.

Often the use of a preservative or an anti-oxidant is indicated. If so, one should not be chosen and then await the outcome. Every possible preservative should be incorporated in separate portions of the product with the blank product for control. Then if one or more fails to work, one or another may perform its function. Usually it is well to incorporate a range of concentration in separate portions, especially if it is costly or if an excessive amount may exert an untoward effect.

In those cases where a government alcohol permit is required delay is liable to occur, in fact, is almost inevitable. Application should be made as early as pos-

THIS is the second of a series of four articles on new product development. With a background of almost twenty years in cosmetics, soaps, detergents, and food products, Ralph Auch, the author, writes from practical experience. Graduating from the University of Cincinnati in 1917 in chemical engineering, he has been associated in a chemical and development capacity with the Great Atlantic & Pacific Tea, Odorono, Glazo, Procter & Gamble, Sears Nickols Canning, and last as chief chemist for American Products. During the World War, he was an officer in the Chemical Warfare Service. To him, writing is a hobby,—in fact, it is an Auch family hobby, but withal a profitable one, for his wife is none other than Anita Auch, well-known newspaper columnist and radio commentator on household problems.—The Editors.

sible because this is one place where the manufacturer cannot beat the gun.

A procedure that is workable is this: As soon as any formulae show promise application for permit for each can be made. One does not have to use all the formulae after permits are granted and only that formula finally decided upon will go into production. Thus the delay that would occur if the application were not made until the formula is finally and definitely decided upon, is avoided.

Testing the Formula

THE importance of the practical testing cannot be overestimated. Unless use is made of testers outside the organization, the final choice is liable to be one which gratifies the wishes or whims of a dominating personality within the organization. Since the human element enters into this, it is possible to develop some generalities which should prove helpful. Those who are to do the practical testing must be carefully selected. Friends and employees when used for testing are generally worse than none. Friends are inclined to be agreeable and to flatter while employees are often inclined not to express their honest opinion, especially if unfavorable, for fear of offending and falling into disfavor.

The testing should be done by a large group, particularly if the product contains active ingredients such as are to be found in a depilatory or freckle cream for example. This is because occasionally an individual may be encountered with an idiosyncrasy or allergy for one of the ingredients. Thus if the test is of a limited scope it may so happen that not a single individual with such an idiosyncrasy will be included in the test. Where it is necessary to develop and test a new seasonal product out of season, it is imperative that a connection be established with a group of testers residing in the climate which at the moment is suited to the work at hand.

Among those who have been found to be accurate and reliable as well as interested testers may be included:

- A—Members of the sales and advertising classes and of the chemistry classes of universities.
- B—The office employees of advertising agencies, or the employees of an intimate friend who will bear down and follow through.
- C—The enthusiastic users of the manufacturer's other established products.

The testers at present used by this writer and his employers comprise two groups:

A—A small group of housewives and mothers who are graduates in dietetics and household administration, and who are paid a fee for each test.

B—A geographically scattered group, numbering several hundred, who represent a good cross section of the American public. A few are colored people. A few are the "upper crust" whose social secretary reports the findings of the cook, the housekeeper or the laundress, while the majority are average citizens in the middle strata.

Any product must receive a favorable report from group A, the intelligentsia, before it is submitted to group B. If any product gets an unfavorable reaction, it is reformulated again and still again if necessary until it meets a favorable reception. It is then submitted to group B to confirm group A's conclusions. In other words, it is submitted to the mass as well as the class.

The Use of Questionnaires

ADVERTISING men generally have a mania for questionnaires and much has been written by them on their preparation, their application and their value. Questionnaires drafted by them are usually for the

HAND SOAP QUESTIONNAIRE
Give men in household use and report this product.
Hand Soap do you like the better?
"B" ☒
soap is less harsh to the skin on your hands?
"B" ☒
Do you regularly keep a Hand Soap in your Home?
"B" ☒
What brand? *Shast*
Give any suggestions or criticisms below.
like B best even though it seems to be a little coarse grit. Bar wastes away.

AUTO POLISH QUESTIONNAIRE
NOTE: If your car does not have a friend or neighbor report the findings. Polish one side of car with "B" for comparison. Which polish do you like better?
"B" ☒
Does your choice compare with "B" for comparison?
"B" ☒
Does your choice compare with "B" for comparison?
"B" ☒
What brand of cold cream do you regularly use?
Permatone
REMARKS (Give any suggestions or criticisms below.)
Use other side.

COLD CREAM QUESTIONNAIRE
1. Do you like the odor of this cold cream?
2. How does this cold cream compare with "B" for comparison?
(a) Equally as good? ☒
(c) Not as good? ☒
3. Would you prefer this consistency?
(a) Thinner bodied? ☒
(c) Heavier bodied? ☒
4. What brand of cold cream do you regularly use?
Pond's
REMARKS (Give any suggestions or criticisms below.)
Pond's is a little too heavy. I prefer for skin.

SILK SOAP QUESTIONNAIRE
1. Do you like this soap for washing silks?
Yes ☒ No ☒
2. How does it compare with the soap you regularly use for washing silks?
(a) Equally as good? ☒
(b) Not as good? ☒
(c) Better? ☒
3. For washing silks do you prefer:
(a) Soap in a bar? ☒
(c) Soap beads or granules? ☒
(b) Soap flakes? ☒
4. What brands of soap do you regularly use for washing silks?
Lux Flakes
REMARKS (Give any suggestions or criticisms below.)
this bar leaves a cleaner feel than others. It is better than others.

VEGETABLE SOAP QUESTIONNAIRE
NOTE: This soap is made under sample is merely cut and not pressed.
1. Does this soap lather freely in your water?
2. Is your water hard or soft? *Very hard*
3. Do you like this type of soap?
4. How does this soap compare with your toilet soap?
5. If this soap were available at your store would you like it?
REMARKS (Give any suggestions or criticisms below.)
like it very much.

HAND AND FACE LOTION QUESTIONNAIRE
1. Which sample do you like the better?
"A" ☒ "B" ☒
2. Which odor do you like the better?
"A" ☒ "B" ☒
3. How does your above choice compare with your favorite brand?
(a) Equally as good? ☒
(b) Not as good? ☒
(c) Better? ☒
4. Name your favorite brand of lotion?
Without color it has a soap-like
REMARKS (Give any suggestions or criticisms below.)
highly perfumed. Found a powder.

CHILDREN'S TOOTH PASTE QUESTIONNAIRE
NOTE: Kindly have the children use the product.
1. Do the children like the flavor of the tooth paste?
2. Which do they prefer?
(a) That regularly used in the home?
(b) This Tooth Paste?
3. Do they prefer consistency?
(a) Of heavier consistency?
(b) As this one?
(c) Of lighter consistency?
What brand of Tooth Paste is your favorite?
Heinrich

Questionnaires are indispensable! They may be used to rate two or more of one's own formulas in development, or a contemplated formula versus the "tops" in competition. Unusual uses may be uncovered, competitive brand preferences may be ascertained or, if product is really good, a veritable barrage of adjectives and superlatives may be secured for use in subsequent promotion. The questionnaire tells you what you want to know,—you do not have to guess!



All tubes shown are the same length and diameter. "Ward's" and "Fisks" annular stripes exaggerate the diameter while "Richard's" and "P & S." lengthwise stripes increase the apparent length. "Zanol" exaggerates both diameter and length with spiral stripes and attains distinctiveness as well by using no base color but utilizing the plain undecorated metal of the tube. "Ward's" shaving cream gets its apparent size by a solid base color and decorations well up at the head. Possibilities are almost limitless. The pair of "Ward's" and "Zanol" tubes each bear family resemblance, while "Langlois" and "Richard's" each missed it, or maybe they didn't want it.

purpose of determining the consumers' preferences, buying habits, brand preferences, likes and dislikes, etc. Whether they swear at or swear by the questionnaire, the fact remains that in developing a new product, carefully drawn questionnaires are just about indispensable. There is not much likelihood of gross inaccuracies creeping in as sometimes happens to the advertising men's results. For instance, a midwestern newspaper conducted a house to house survey to gather data for national advertisers, in which about 97 per cent of those questioned stated their preference in tooth pastes and tooth brushes. It is doubtful whether more than 40 per cent actually use either or both regularly and the remaining ones,—the big majority,—were ashamed to admit their neglect, so merely mentioned the brand name that first came to mind.

Questionnaires to accompany samples prepared for testing should be drafted so as not to influence the answers. For example, the question "What do you think of the consistency?" is obviously better than "Don't you think the consistency is satisfactory?" The latter question has an affirmative suggestion and that doubtlessly tends to warp the response. In other words, leading questions which tend to prejudice the answer should be avoided.

Whenever possible the question should be definite and specific so that a clean-cut definite answer will be obtained,—one from which a conclusion can be drawn. In those cases where the product is not new and must go out and compete and find its place among products that are established and favorably known on the market, it is well to insert questions that will obtain the users' spontaneous replies on the merits and inherent faults of their favorite brand. At the same time, if possible, some questions should be inserted that will cast some

light on how the samples in the test compare with the testers favorite. Frequently this procedure is followed:

All competing items are purchased and tried out practically to ascertain which one most nearly meets the need and has the fewest inherent faults. This product is then bought in quantity and transferred to plain containers. The formula of the product to be tested is then made up and put in similar containers and the two are marked A and B. They are then sent out with a carefully prepared questionnaire for the devil to catch the hindmost. If a product under test comes out overwhelmingly on top, fine! If not, research is again started to overcome the objections and shortcomings uncovered by the collated questionnaires. The improved formula is then submitted to further similar testing.

To stimulate and hold the interest of testers and insure the return of the questionnaires fully and carefully filled out, some incentive must be offered. One that has given fair to good results is the offer to send a full size package of one of the manufacturer's other regularly marketed products gratis upon receipt of the filled-in questionnaire. A follow-up letter to jog their memories has also proven helpful sometimes. Pages and pages could be devoted to the subject of testing methods and procedure, but typical questionnaires may be studied in the illustration.

New Raw Materials Required

WHEN a new specialty is developed, new raw materials are often required. As soon as it is established that there is likelihood of any given material being utilized, it is well to start shopping for it. In this way, time can be saved, and payment of premium prices for any material during the period while the logical, most economical source of supply is being lined up, can be avoided.

In other words, the shopping and the process of elimination of the unsuitable can be going on concurrently with the final developmental work. It has long been this writer's practice never to use the usual laboratory reagents and materials in developmental work, but to use commercially available materials from the very start of the research.

Sometimes when materials in a desired physical state are not available, the co-operation of manufacturers or vendors can be enlisted early. Recently a salt available only in crystals of several sizes was required in flake form. Two manufacturers were finally able to produce a satisfactory material in the desired physical state. Contracts were entered into with both so that neither was left high and dry, and both may be counted upon to co-operate on any special work in the future.

Another satisfactory arrangement is that of lining up two or more sources of supply on every raw material. If a contract is entered into with one, the second and the third one can be turned to if the first falls down on quality, on delivery or becomes financially weakened. If no contracts are entered into, the purchasing department is free to favor that vendor with the sharpest pencil each time there is a requisition for procurement.

Shall the Product Be Patented?

WHEN a new, unique product is developed the question frequently arises,—shall it be patented? Almost without exception the answer is,—it should *not* be. Perusal of recent patents on specialties discloses many absurdities. Simple mixtures, often in use for decades by others, have been granted patents. The rush to the patent office by the ignorant and the uninformed is to be expected, but when national advertisers patent simple laundry mixtures, furniture polishes and the like, the explanation is difficult to find.

As stated earlier, a recent trade journal headline read "Latherless Shaving Cream Composition Revealed By Patent." Then in the text, sure enough, the formula was disclosed. A patent does disclose the formula and even the *modus operandi* and makes it available for use as is or for improvement by competition. How much better to keep the new product and its formula dark so as to storm the market and get firmly entrenched before competition has awakened to what it is all about.

A process or a container when unique or different, or which offers some advantage to the manufacturer or to the consumer, however, should by all means be protected via the patent route. The chances of infringement are more remote and any infringements can be more satisfactorily prosecuted.

One thing to bear in mind, if an article is patented, is that trade-mark protection should be secured first. A trade-mark on an unpatented specialty may be enjoyed for the life of the business or, theoretically, until eternity. A trade-mark monopoly secured on an already patented specialty expires with the expiration of the patent monopoly after seventeen years.

Almost without exception, the trade-mark is far more valuable than the patent. Not a single product patent worth a million comes to mind whereas hundreds of trade-marks could be named each of whose value runs into millions.

From Test Tube to Plant

TAKING a new product from the laboratory test tube to the manufacturing department batch is a big step. This industry does not permit or warrant the semi-works method of installing special small equipment to prove laboratory results before going into plant scale production as does basic chemical manufacture. However, it is frequently possible to make a relatively small quantity to confirm the consistency, working temperatures, color, odor, etc. by making trial batches as small as can be handled in the equipment at hand.

If the experimental laboratory batches are 100 grams and the manufacturing batch is say 1,000 pounds, some adjustment must of necessity be made. One thousand pounds is 453,000 grams, so any laboratory errors are multiplied over 4,500 times when the product goes into production. The first to show up are those in the color and odor. An over-tinted or over-perfumed lot of any product is an abomination that has to be worked up gradually in subsequent batches. A workable procedure is to add in the first manufactured batch only one-half or two-thirds of the calculated amounts of color and odor. One can then add sparing amounts of the remainder until the correct concentration of each is obtained.

Frequently available equipment can be utilized to manufacture, fill and package a new specialty. When it is necessary to install new equipment, it is well to bear in mind that the mere fact that a competitor uses such equipment is no criterion as to its suitability. Unless one is taken behind the scenes it is a gamble whether or not the competitor's equipment is well or ill-suited for the work at hand and whether or not it has long since become obsolete. Machinery, however, has often been adapted or adopted from the rubber, paint, canning, chocolate and confectionery, milling and baking, dairy and beverage industries for the manufacture of specialties with entire satisfaction.

Generally, the management will do well to leave second-hand machinery alone except that which has been completely re-built. The larger manufacturer who maintains his own mechanical or repair department can go in for used equipment to a larger extent than the small manufacturer who must have all repairs and rebuilding done on the outside. Even so, there is the matter of obsolescence. Perhaps the available used equipment was thrown out by some aggressive competitor in favor of more modern, more suitable, more economical equipment.

The right type of container can be a great help in stimulating sales, and conversely, an ill chosen container can retard sales materially. As one container manufacturer very aptly advertised, "Some products
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RADIO CITY

Its Soap and Cleaning Problems

By L. C. PALMER

Supervisor of Cleaning, Operating Dept.

RADIO CITY, or as it is more correctly designated, Rockefeller Center, that new and famous group of massive buildings in New York which spreads out in three directions from Fifth Avenue and Fiftieth Street, is truly a city in itself when it comes to maintenance and cleaning problems. It contains alone over four million square feet of floor space, including rubber, mastic and cork tiles, zenithern, terrazzo, and cement, which must be cleaned each night,—not to mention the care and cleaning of its tapestry and painted canvas walls, its marble and granite, its upholstery and fabrics, and its dishes and cutlery. For Radio City houses numerous clubs and restaurants, two theatres, radio broadcasting studios, stores and showrooms, and thousands of offices. In its consumption of soaps, cleansers, and sanitary products, this self-contained city runs through the entire list from ordinary bar soap down to floor waxes and special detergents.

At Radio City, many of its cleaning materials are formulated on the premises from basic products. A great number of soft paste soaps were tried out before a corn oil base was decided upon as standard for general cleaning. The liquid soap is made up from the corn oil base and distributed from a central point to

all buildings. Fifty-five gallons of this soap solution are used each night on the floors of the six buildings now completed, and proportionately more will be used in the new Palazzo d'Italia and International Buildings when they are completed within the next few months.

A considerable length of time has been spent in investigating and examining the various types of soaps suitable for Rockefeller Center's purposes. Among the many types considered were soaps made from linseed oil, soya bean, sunflower, corn oil, cotton seed, and, of course, the animal fats. In this same respect, both hard and soft soaps were considered. From the standpoint of efficiency and economy, the corn oil stood out and was selected. In the case of the linseed oil, its tendency towards rancidity gave it a lower rating. Although the soya bean and sunflower oils compared well, they did not meet the efficiency that was given by the corn oil. With reference to cottonseed and animal fats, these two items proved to be too heavy, due to their high titre. In making a decision between potash and sodium soaps, the potash soaps were selected principally because of their greater solubility, with cor-



The Great Hall and East Entrance of the R. C. A. Building, the 70-story main structure of the Radio City group.

responding ease of manipulation and complete rinse removal.

As an abrasive base, Rockefeller Center uses the softest volcanic ash obtainable, the type that will crunch under slight pressure and will not abrade the surface. Particular attention is paid to the mesh of this abrasive, insuring the fact that it will do the job with the least amount of work entailed in its removal. A long series of tests were conducted covering the silicas, the quartzes and volcanic ashes. The purpose in mind was to discover an abrasive that would scour and yet not mar the surface. The actual labor and removal were also borne in mind. In the final analysis, a soft, volcanic ash, the type that under pressure of mop or brush will break down and not abrade the surface, was chosen. As to fineness, an ash of the softer type of 100 mesh proved to be the most efficient.

Alkalies of the modified type are added only on the job where the condition or surface requires. A thorough investigation is being made of what might be termed the so-called "controlled" alkalies. The claims made on these materials, when put to practical usage, remain to be determined. Of course, in some instances some or all of these claims may be substantiated, but with the varied conditions to which the materials will have to be put, they may not carry through.

All of these ingredients are mixed in proportions adapted to the surface requirements. For mastic floors which contain tar and pigment and for linoleum, rubber, and tar floors, alkalies, of course, are never added, as they will "bleed" the floors of their pigment. In these cases, a special soap powder combined with volcanic ash has been found most efficient.

A special problem was presented in the terrazzo floors, made up of marble chips set in cement, which are on the street, concourse and mezzanine levels of the RCA

Building, the street and concourse levels of the British Empire Building and La Maison Francaise, and the street level of the RKO Building. When new, all terrazzo floors present a "dead" appearance so-called because they are rough polished when completed and appear to have a grey film on the surface regardless of color, which makes them look lifeless. To counteract this appearance, a liquid soap preparation containing wax is used in cleaning. This will be discontinued when the terrazzo floors acquire their permanent sheen.

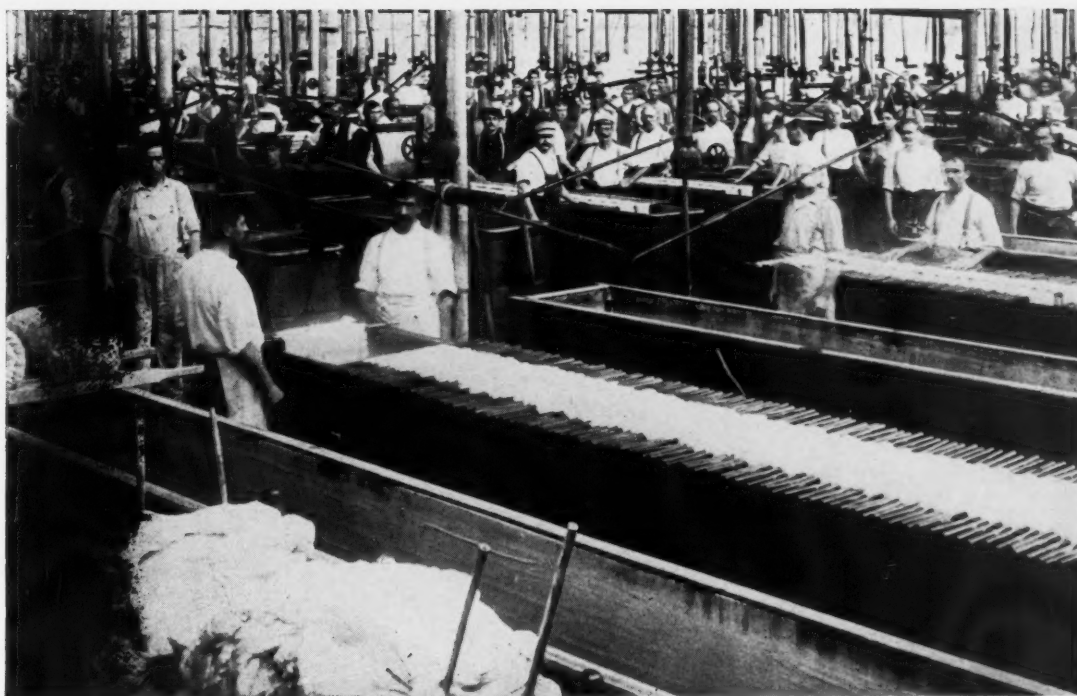
Soap chips and dry cleaning agents containing the highest grade basic ingredients, together with a straight olive oil soap, are the agents used in cleaning most of the fabrics and wall surfaces. Again an accurate control and scientific treatment is exerted.

The restaurants on the Rockefeller Center Roofs which have been opened within the past six months have necessitated careful appraisal of the merits of various detergents for use in cleaning china and cutlery. In the Rainbow Room, the well-known night club, alone are stocked 568 dozen glasses, 1,005 dozen pieces of china, and 697 dozen pieces of silver. In addition to the Rainbow Room there are the Patio and the dining rooms for executives of corporations and clubs which are tenants of the buildings.

No soap is used as a detergent on the glassware and dishes of these restaurants. All this work is done with machines which require a special type of detergent which insures clean and sanitary dishwashing. This detergent after various tests was found most effective in a 2 or 3 per cent solution. It is purchased in 300 pound barrels. Only china and glasses are cleaned with this special detergent. Silver is cleaned by dipping in a chemical solution which removes the oxide in from 15 seconds to 2 minutes, depending on the amount of tarnish.

Although Rockefeller Center itself has installed no liquid soap systems, many tenants have supplied their own. These utilize different types of dispensers including individual ones with lift-up valves and with push-in valves, and also liquid soap tank systems. Powdered soap dispensers have also been installed by some tenants. No particular preference for any special design has been evidenced by the tenants.

Glycerine in soap protects the skin from the influence of sunshine, cold and irritation by alkalies. It also lessens the tendency of shaving cream lather to dry. It has the disadvantage of reducing the amount of lather. Lanolin is a good super-fattening agent for soap. It does not effect suds production, keeps the skin soft and prevents chapping. A lecithin-lanolin mixture confers a greater lathering power, with the formation of a lighter suds. During washing the skin takes up some of the lecithin, so that the latter may be said to act as a stimulant. Th. Ruemele. *Allgem. Oel- u. Fett-Ztg.* 32, 101-3 (1935).



Scene in a Paterson, N. J., Silk Mill.

The Trend in Textile Detergents

By A. H. PETTINGER

Wakefield, Yorks, England

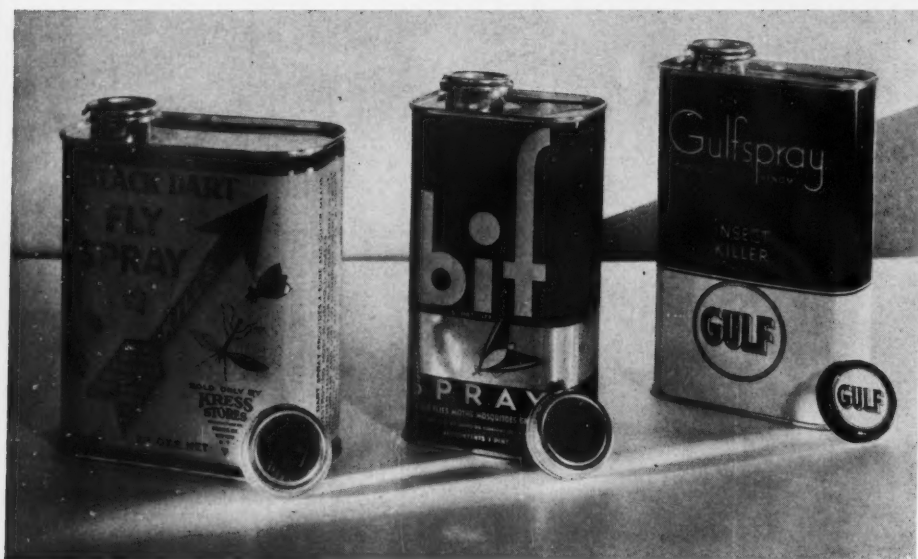
REVOLUTIONARY changes, as far as the use of soaps and detergents are concerned, continue to take place in the textile industry. Although for years, textiles have represented one of the largest industrial fields of soap consumption, and still do, new methods for cleaning and washing are being adopted from time to time which have a direct bearing on the future of technical developments in soap manufacture. Some new detergent products and methods tend to eliminate soap in the textile field, while others, by overcoming its shortcomings tend to give soap a more important place than ever in the textile picture. With higher prices for soaps and soap materials, the opportunities for the newer and more costly detergents are expanded, for low price has been an important factor in soap holding its textile market against the invasion of new methods and materials.

At the moment, experiments are in progress in the United States for removing dirt, grease and foreign matter from wool by freezing. Thus sorted wool containing grease and much impurity is moved through a specially constructed insulated chamber at the rate of 1,200 lbs. per hour and is subjected to a tempera-

ture of -40 deg. F. Under such conditions wool grease freezes and becomes friable so that upon agitation it is reduced to dust and removed mechanically as well as the accompanying dirt and foreign matter. The fiber itself does not freeze and is in no way damaged by this treatment, while the effect is so satisfactory that vegetable matter is reduced to less than $\frac{1}{2}$ per cent of the original grease-weight and some two-thirds of the grease is removed. The advantages claimed for this new process are, saving of soap, improved color of wool, less alkali used, less pollution of streams by effluent. Patents have been taken out on this method in both U. S. A. and Great Britain wherein the process described is essentially the same. From the point of view of the wool manufacturer there is a lot to recommend this new innovation and while soap will still be needed to remove the last traces of dirt and grease from the fiber, the amount required must inevitably be much less.

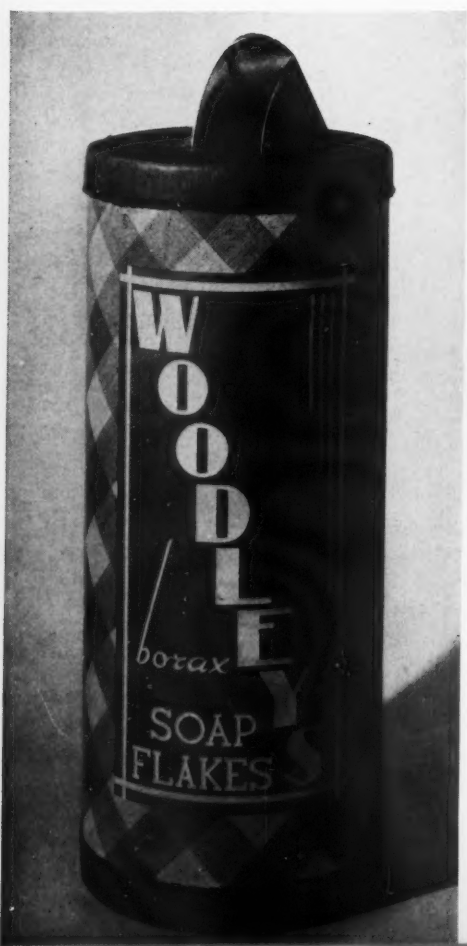
Another method of wool cleaning wherein no soap is used is the solvent process. At one time, the only satisfactory known solvents such as benzene were difficult and dangerous to deal with, being most of them in-

(Turn to Page 35)



New

Three spray products improve their containers,—Black Dart of Kress Stores, Bif of Union Oil, and Gulf Spray of Gulf Refining adopt the new Amerseal nozzle and cap for their packages.



United Drug Company of Boston adopts a new feather-weight plastic shaving bowl with octagon name plate. Moulded prongs in the bottom of the bowl prevent it turning with the brush. Made by Arrow-Hart & Hegeman Co., Hartford, Conn., of Durez.

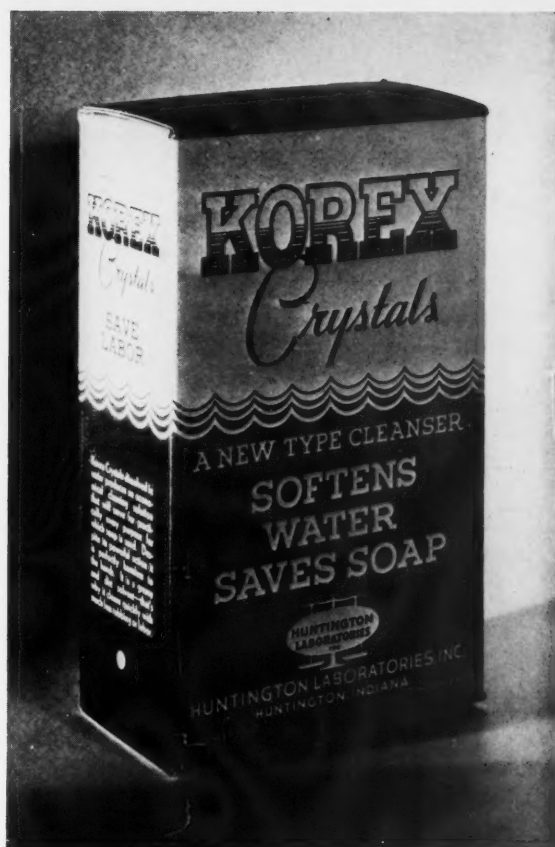
Woodley's Borax Soap Flakes, a new item in a new package with special metal pouring spout. Identical packages supplied in two color combinations, red and white, and green and white. Made by Woodley's, Inc. of Milwaukee.

Products and Packages



Another of the Clover Farm cleaning products appears in a newly redesigned container. Clover Farm Cleanser follows the red, white and blue color scheme of its other products. By Clover Farm Stores of Cleveland.

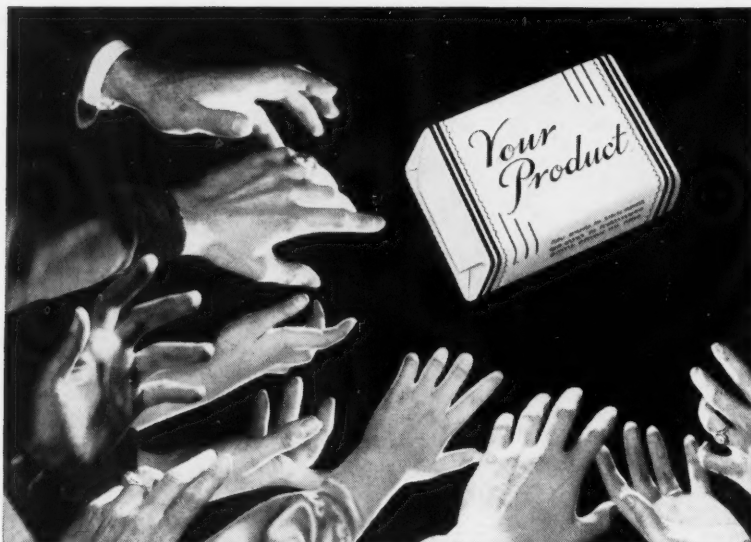
A new container of stock spray meets the admiring glances of the cattle. Dr. Hess Fly Spray in a new can by Giles Can of Chicago. The spray is manufactured by Dr. Hess & Clark, Inc. Ashland, Ohio.



Korex is a completely redesigned product with a new name and new package. Formerly called Rex Crystals. Now in a striking bright blue and white carton. Manufactured by Huntington Laboratories of Huntington, Indiana.



Package Salesmanship



Eye appeal is one of the first steps in modern package salesmanship. Notice how often a purchaser selects one product in preference to another, chiefly because of a superior package.

Today, thanks to modern developments in wrapping machinery and materials, you have a greater opportunity than ever to secure a package that has striking individuality and sales appeal.

Our machines wrap the leading brands of toilet soaps, and we have designed them to produce many special forms of wrapping. They are adapted to practically every type of packaging material—plain "Cellophane," printed "Cellophane," printed paper wrappers, glassine, foil, etc.

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A package improvement does not necessarily mean increased cost. On the contrary, the very machines which make the improvement possible often lower costs because of their higher efficiency.

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Our machines wrap the vast majority of toilet and laundry soaps



PACKAGE MACHINERY COMPANY

Over 200 Million Packages per day are wrapped on our Machines

TREND IN TEXTILE DETERGENTS

(From Page 31)

flammable and therefore subject to many legal restrictions. Now, however, there are innumerable valuable solvents of all kinds which are very active in dissolving and removing grease, and at the same time are comparatively harmless. Thus a patent of the I. G. Farbenindustrie A-G., (Brit. Pat. No. 300,941) recommends the treatment of raw wool with a mono- or dichloro-hydrocarbon such as octane monochloride or dichloride of xylene, hexane or benzene with subsequent rinsing and aeration of the wool. More recently the non-inflammable solvent trichlorethylene has been much used for dry-cleaning and in addition, has been the subject of a patent for removing the pitch and natural coloring matter from wool. (Saare, Brit. Pat. No. 401,525).

The advantageous feature of solvent scouring is not only a saving in chemicals such as soap, but that soda ash which has a detrimental effect on the wool substance, is not necessary. Many faults in dyeing arise from the use of soda, and it has been proved that unnaturally rapid fading of dyed goods in wear may be traced to this origin in many cases. There is no felting of the wool fibers and shrinkage is prevented at the same time. The solvent method has its limitations, for instance it is more costly than wet scouring and usually requires the addition of a subsidiary soap scouring machine.

Interest appears to have revived lately on the suint scouring method of washing wool. In this process the natural soap-like compounds occurring in raw wool, namely the suint or perspiration of the sheep are made to do duty in wool washing. This is a definitely economical innovation and has been the subject of many patents and technical articles. That this matter is of commercial interest is indicated by a recent investigation into the detergent powers of suints from various sources. (Stott and Mengi *J. Soc. Chem. Industry*, London, 1934, 53,211T). Thus a 5.6 per cent solution of suint from South American wool lowered the surface tension of water to the same degree as a 0.45 per cent solution of potassium oleate, under standardized conditions. South African merino suint proved to be the best of five varieties tested, and of this kind, a 2.5 per cent solution was of equal detergent value to 0.45 potassium oleate.

It may be of interest to note that Duhamel who has been the principal worker in this field has only recently taken out a patent (Brit. Pat. No. 399,826) for regenerating spent suint liquors by subjecting them to a vacuum in closed vessels to deaerate them and facilitate the settling-out of suspended matter. Soap technologists will no doubt watch future developments in this process with interest and advantage.

It would be hard to find in any industry trends comparable with the introduction of so many special wetting and washing agents into the textile markets in recent

years. During the last ten years there have been so many sulfonated products, such as sulfonated fatty alcohols, amides, for aiding wetting and cleansing textile materials that it is no wonder that some technologists and dyers have lost patience with the trade. Substances like the Igepons, Gardinols, Perminals all constitute very material advances over anything available some time ago, and as far as their resistance to hard water and lime soaps is concerned, they fully bear out the claims of the makers. But all the same, they have not been welcomed over-enthusiastically by the textile trade, and mostly because of the price factor. It is true that they offer possibilities of simplification in works practice where acids and lime soaps are commonly found the stumbling block to correct processing, but as yet, the vast majority of textile works use soap for washing and to a smaller extent use these reagents as auxiliaries.

In any review of current textile scouring practice, mention of sodium metaphosphate should be made. This undoubtedly constitutes a real advance in washing technology and is in a different class from all previous claimants. It will be recalled that this salt reacts with insoluble lime and magnesium salts and soaps to give a complex compound which is non-ionized, so that calcium and magnesium ions are for all practical purposes removed from solution by its addition and not merely resisted. A skein of wool yarn which has undergone treatment in a soap liquor containing lime, and is therefore full of lime-soap, washes well when dipped into weak metaphosphate. The lime soap is exchanged for an equivalent proportion of sodium soap, so that lathering and cleansing actions are re-instated. The result is an immediate creamy foam which is in marked contrast to the previous condition of precipitated soap and no foaming.

There would appear to be a big field for future development in connection with metaphosphate in the manufacture of detergent preparations. Already the I. G. Farbenindustrie A-G have taken advantage of hexameta-phosphate as a material for cleaning household linen, artificial silk hose, floor covering, etc., in their recent British patent number 408,708. There is every reason to believe that soaps containing similar addition would find favor in the textile trade in order to save the use of metaphosphate as a separate treatment.

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Benj. French, Inc., New York, perfuming materials, has taken new and larger quarters at 160 Fifth Ave. in the same building where its offices have been maintained for the past fifteen years. The additional space will permit of more commodious offices and increased laboratory facilities.

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The index of employment in the soap industry, compiled by the U. S. Dept. of Labor, registered 98.2 for May, 1935, as compared with 102.7 for April and 102.3 for May, 1934. The pay-roll index was 93.8 in May, 1935, as against 97.0 in April and 87.1 in May, 1934.

STATUS OF GUFFY-DOCKWEILER BILL

Chances for a vote on the Guffey-Dockweiler Bills, designed to take the excise tax off Philippine coconut oil for industrial use, at this present session of Congress, seem to depend on whether President Roosevelt's new tax recommendations come to a vote or are deferred until the next session in January, 1936. The new bills, S. 3004 and H. R. 8000, cannot be gotten out of committee as a separate piece of legislation, it is believed, and the only way they would come to a vote at this session would be if they could be offered as an amendment to a tax measure. If they are carried over to the next session, they will remain in committee and will not have to be reintroduced. In the last six months of 1934 and the first four months of 1935 a total of \$14,638,203 was paid in taxes on Philippine coconut oil, the entire amount collected being returned to the Philippine treasury. A total of \$5,333,218 was paid in taxes on other oils.

CHAIN STORES ORGANIZE IN ENGLAND

A new organization, known as the Federated Multiple Shop Proprietors, has been formed in the United Kingdom, and Lord Trent, head of Boots Cash Chemists, Ltd., druggists and soap manufacturers, elected president. Although the large department stores have been organized for consultative and negotiating purposes through their own special trade association, chain store undertakings in Britain have remained without any collective mouthpiece up to the present. The new association will fill this gap.

Greater consumption of rosin by French soap manufacturers has been brought about this year by the increased prices of vegetable oils and tallow. Another reason for the increase was an agreement reached between the Syndicate of French Soap Manufacturers, the French Syndicate of Naval Stores Commerce and Industry, and the French Ministry of Agriculture. The percentage of rosin that can be used in the manufacture of soap commercially labeled as "72 per cent Extra-Pur" has been increased from 5 per cent to 8 per cent. This rosin agreement is very favorable for the French naval stores industry, and it is estimated that the annual consumption of rosin in France by soap manufacturers could be increased by approximately 4,000 to 5,000 metric tons. The naval stores industry is now making earnest efforts to have the specifications changed so that this type of soap can be included in government bids.

Manufacturers in the drug field are being urged to qualify and operate under state fair trade laws in a series of letters being sent out by the National Association of Chain Drug Stores. Such laws have been enacted in New York, New Jersey and Maryland already, and are under consideration in several other states. Their purpose is to put an end to destructive price cutting on trademarked products.

CHICAGO TRADE NOTES

GEORGE L. SIMMONDS, president of U. S. Sanitary Specialties Corp., Chicago, is the latest addition to the staff of Governor Ruby Laffoon of Kentucky. Mr. Simmonds was appointed to a colonelcy on June 11 with duties as an aid-de-camp on the governor's staff. Colonel Simmonds arrived in New York July 12th for a two weeks stay.

Mr. and Mrs. E. O. Matsch spent the week of June 16th in Chicago. Mr. Matsch is secretary and treasurer of the Iowa Soap Co. of Burlington.

A. A. Breuer Electric Mfg. Co., Chicago, and his family recently moved out to their summer home near Lake Zurich.

An all-day rain which at times assumed the proportions of a cloudburst failed to dampen the ardor of some fifty members and guests of the Golf Auxiliary of the Chicago Drug and Chemical and Chicago Perfumery, Soap and Extract Associations who turned out for the second golf tournament of the year at Olympia Fields C. C. June 18th. Prize winners were as follows: Class A—G. M. Van Kirk, 89-15-74; H. W. Cochran, 87-12-75, and T. F. Gilson, 95-19-76; Class B—E. M. Shuhman, 98-20-78; R. L. Holland, 98-20-78, and C. C. Marshall, 102-20-82; Class C—J. Gauer, 109-28-81; M. B. Pennal, 118-36-82, and C. P. Van Schaak, Jr., 114-30-84. Guest prizes were won by C. W. Beilfuss, 88-17-71, and W. Schulze, 85-11-74. Blind bogey prizes were won by C. Sippil, H. G. Bishop, W. H. Jelly and A. J. Anderson. Following dinner a large class of neophytes was initiated into the Royal Order of Yellow Dogs. C. C. Marshall presided at the initiation. A challenge from the Detroit association was accepted and it is planned to send a team to Detroit for the September tournament there. The Detroit team has been invited to play in the Chicago Tournament in August. Announcement as to time and place for the next tournament has not been made.

Practically every member of the Affiliated Sanitary Supply Distributors Association was represented at the June meeting. The speaker for the evening was Arthur Srebrén of Murray & Nickell Mfg. Co., Chicago, who gave an interesting talk on the progress made in insecticides and the opportunities for future development. It was voted to discontinue meeting during the summer so the next meeting is scheduled for the second Tuesday in September.

The New York offices of Bristol-Myers Co., makers of "Ipana" toothpaste, will be moved shortly to new quarters in the International Building, Rockefeller Center, New York.

Sending a can of *Sunbrite Cleanser* by wire was one of the advertising stunts which attracted wide attention at the annual convention of the National Association of Retail Grocers, held last month at Indianapolis. Dealers from all parts of the country standing in line to take advantage of Swift & Company's free "Wire the Wife" a can of Sunbrite. The can was delivered at the home of the dealer by a Western Union messenger with the message "This can of Sunbrite is sent you from the National Association of Retail Grocers Convention at Indianapolis with the compliments of Swift & Co."

Knowing that the dealers would not bother to carry a can of the cleanser home, a special telegraph operator was installed in the Swift booth at the convention hall. Over 1,400 telegrams were sent, reaching every state in the Union. Executives of Swift & Company who attended the convention included R. H. Gifford, manager of the branch house sales department, J. A. Revell, manager of the car route sales department, J. S. Williams, soap department, H. C. Stanton, manager of the specialty sales department. The "Wire the Wife" stunt was planned and developed by Swift & Company's advertising department of which Leo Nejelski is manager.

Also prominently displayed at the retail grocers' annual convention in Indianapolis was *Kitchen Klenzer*, manufactured by Fitzpatrick Brothers of Chicago. Included in the exhibit were also their Automatic Soap Flakes and Big Jack Laundry Soap.

At a recent meeting of the executive board of the Associated Manufacturers of Toilet Articles held in New York, it was decided to continue the organization, although it will be inactive in view of the recent formation of the Toilet Goods Association. Its staff will be transferred to the new association, which has also taken over the AMTA offices at 30 Rockefeller Plaza, New York. Present officers of the AMTA will continue to serve in the interim, until another general meeting is held.



A sampling campaign on "Climalene" was recently completed in the Chicago market, with 500,000 selected homes being covered. This is the third large scale sampling campaign in the Chicago district in recent months, as 1,000,000 homes recently received samples of "Silver Dust" and prior to that 400,000 homes were covered in a sampling campaign on "Oakite."

Articles of incorporation have been filed by the Columbia Chemical Company, Des Moines, Iowa, 100 shares of stock, having no par value being issued. The firm is authorized to manufacture, handle and sell chemical products, including soaps. Samuel D. Noah is president and P. M. Caster, secretary.



SOAP PERFUME SPECIALS *by* SOAP PERFUME SPECIALISTS

Will 60 or 75 cents perfume 100 pounds of toilet soap? It will, *if* your perfume has been *specially* made by perfumers who have made a lifetime study of soap.

We have built up an entire department along those lines and invite your inquiries.

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438 West 48th St., Los Angeles

42 Wellington Street, E., Toronto

Factory, Elizabeth, N. J.

PERSONAL AND IMPERSONAL

Velure Products Co. is the name of a new Detroit concern which will manufacture a household cleanser. A. J. De Santo is the proprietor.

Iowa Soap Company, Burlington, Iowa, and Camden, N. J., has placed its advertising account with the Morenus Advertising Agency, Chicago.

Rich Soap & Chemical Co. has been organized in Philadelphia by Philip Goldrich and Paul Freidhoff. Offices are at 1218 Ridge Ave.

John Sunshine Chemical Co., Chicago, has recently taken additional space for enlargement of its quarters at 604 West Lake Street.

E. A. Carpenter has been elected secretary of E. F. Houghton & Company, Philadelphia, soaps and oils, to fill the vacancy caused by the recent death of A. Everly Carpenter, III.

H. G. Buckley has become associated with the Pynol Company of Burlington, Iowa, makers of Pynol soap and disinfectant, as representative in the New York Metropolitan area. He was formerly connected with the sales department of the Hewitt Soap Co.

Columbia Alkali Corporation moved its offices June 15 to 30 Rockefeller Plaza, New York, adding one more name to the list of prominent chemical firms who are now located in "Radio City". The new telephone number is CIRCLE 7-3850.

Maxwell Sutter is now located at the Hoboken plant of Lightfoot Schultz Co. as assistant chemist.

Walter R. Kirk, Inc., soap manufacturer, formerly located at 327 S. La Salle St., Chicago, has moved to 135 S. La Salle St.

Elmira Soap Products, Inc., Elmira, N. Y., has recently suspended operations.

Charles P. Mercer has been appointed advertising manager of Iowa Soap Company, Burlington, Iowa. He has been in advertising agency work for over twenty years.

American Chemical Products Co., Rochester, N. Y., has taken new quarters at 75 Rockwood St.

A new cold-water Lux for fine fabrics is being marketed in England by Lever Brothers, Ltd. and is being advertised extensively in all parts of the United Kingdom. The company maintains that high temperature in washing delicate fabrics is an important cause of fabric and color deterioration. The new Lux which is stated to dissolve completely and to wash efficiently in cold water avoids the difficulties caused by hot water.

U. S. Patent No. 2,004,670 has been granted to Lever Bros., Ltd., Port Sunlight, England, covering an improvement in perborate soap powders in which loss of oxygen from such a powder containing sodium silicate is greatly decreased by the addition of a magnesium salt.

H. H. Bertram, of Frederick Loeser Co., has been named chairman of the committee which will conduct the Perfume and Cosmetic Buyers' Conference and Exhibition scheduled for the Hotel Commodore, New York, September 9-12.

Household cleaning compounds will be manufactured by Solventol Chemical Products Co., 970 East Vernor Highway, Detroit. The company was organized recently by Edwin Schulte and Charles Campbell.

H. P. McClure has been named Dallas, Texas, manager for Colgate-Palmolive-Peet Co. in a recent change. He formerly covered Miami and Jacksonville. This territory will now be taken over by Paul Snyder, previously in Charlotte, N. C. J. L. Johnson, formerly stationed in Florida, has been advanced to district manager of the St. Louis office.

Supreme Laboratories has been organized in Detroit by Earl E. White to manufacture "Radiant Youth" shampoo. Offices are at 1245 Clairmount Ave.

Allen B. Wrisley Co., Chicago, recently went into production on a floating cake of milled toilet soap which owes its bouyancy to small holes pierced in the cakes by a newly designed press. Fred Crary, inventor, of Middleport, Ohio, worked out the idea for the new soap and also designed the machine for pressing the capillary holes in the cakes. In operation the press will turn out 2,400 cakes an hour. The new product will receive national distribution.

H. Q. Z. Laboratories, Inc., San Francisco, has recently introduced two new hair products, "H. Q. Z. Soapless Oil Shampoo" and "H. Q. Z. Wave Tint Set".

COLUMBIA

SODA ASH ★

CAUSTIC SODA ★

MODIFIED SODAS ★

CALCIUM CHLORIDE ★



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Executive Sales Offices
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Branch Sales Offices
BARBERTON, OHIO
431-451 ST. CLAIR ST.
CHICAGO

CAREW TOWER
CINCINNATI
GRANT BUILDING
PITTSBURGH

Plant at BARBERTON, OHIO

Final pleas in the Lamont patent suit, involving Colgate-Palmolive-Peet Co., Procter & Gamble Co., and Lever Bros. Co., were delivered before Judge Thomas W. Slick in South Bend, Ind., recently, marking the conclusion of this stage in the case. After Judge Slick's decision as to whether Lever Bros. Co. has been guilty of infringement of the patent, it is expected that an appeal will be entered by whichever side loses. In case the decision is to the effect that there has been infringement, it will be necessary to appoint a master to determine the extent of the damages to which the plaintiffs may be entitled.

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Incorporation of sodium perborate into a dry soap flake is covered by a new process claimed by V. F. Nelson of Dubuque, Iowa, which gives a finished product that is stable under all conditions except excessive heat and humidity, and liberates oxygen during use. The incorporation of a perborate is stated to give the customary advantages of oxygen liberating compounds.

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Senator Eugene Charabot, head of Charabot & Co., Grasse, France, was a member of the official French Government party which accompanied the *S. S. Normandie* on her maiden trip to New York. Senator Charabot holds an official position in connection with the French Merchant Marine, and it was this fact as well as his long record in the promotion of Franco-American good feeling that led to his selection. While in New York he made his headquarters with Ungerer & Co., representatives in United States for Charabot & Co.

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Chas. H. Phillips Chemical Company, New York, has begun distribution of its new "Phillips' Magnesia Tooth Powder," which now takes a place in the Phillips' line of Milk of Magnesia products. An extensive advertising campaign will be run to gain consumer attention for the new product.

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The new Maine Cosmetic Law which became effective July 1 lacks many of the objectionable features which were the basis for charges of unconstitutionality against the previous Maine measure. The bill provides for registration of cosmetics at the cost of 50c for each product registered, but multiple registration for each shade and color is not asked. Formula disclosure is not required, and soaps and perfumes are exempt from the provisions of the new bill.

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Charles V. Bacon, well-known chemist and specialist in oils, has moved his offices and laboratories to 117 Liberty St., New York. He announces that he has built an entirely new modern laboratory and doubled his facilities in addition to increasing his laboratory personnel. For a number of years, his laboratories have specialized in research and testing of oils, and in surveying bulk oil shipments.

OPEN TALLOW FUTURES MARKET

The new tallow futures market operated on the floor of the New York Produce Exchange opened for trading, Wednesday, June 26, with many prominent figures in the soap and oil and fat trades present. Volume of trading, while not heavy, was considered satisfactory, total sales being 11 contracts. Opening prices were about in line with the spot market, the first sale being at 6.6c and covering a transaction between James Eblen and Richard Frankenfelder.

The new futures market will give soap makers an opportunity to hedge in inedible soap products, serving the same function that the cotton oil market does for the edible oil consuming industries. The grade of tallow dealt in is equivalent in specifications to New York extra tallow. Single contracts call for one tank car of 60,000 lbs. of loose tallow, entirely of animal fat, untreated and unbleached, and of good merchantable quality. Premiums and discounts are not to be allowed on higher or lower grades. Commissions to brokers are the same as those applying on cottonseed oil, namely, when selling at a price up to and including 10c lb.—\$20 for members and \$30 for non-members; and further graduated above that level. Trading hours will be from 11:00 A. M. to 2:30 P. M. weekdays, and from 11:00 A. M. to 11:30 A. M. on Saturdays. Prices are quoted in 1-100 of a cent per pound, equivalent to \$6 a point per contract.

Robert W. Capps, president of the New York Produce Exchange, presided at the ceremonies incidental to the opening of the market, saying in a short opening address "that the market was intended to serve the same purpose and afford the same hedging opportunities and facilities for inedible oils as cottonseed oil serves for the edible."

Edwin Stern, chairman of the tallow futures committee, also spoke briefly, saying "the opening of the tallow market for future trading will lend itself to the fullest extent to the opportunity for all members of the exchange, buyers, sellers and brokers, to trade."

Among those present at the opening were: William Holt, Colgate-Palmolive-Peet Co., W. F. Mitchell, Procter & Gamble Co., F. B. Patten, Armour Soap Works, I. Katz, J. Eavenson & Sons, Mr. Pyle, Fels & Co., Jerome Lewine, president of the New York Commodity Exchange, Edward Seh, Wilson & Co., Edwin Stern, Henry Zwing, Zimmerman, Alderson & Carr, Wallace Brindley, Harold Bache, Bache & Co., Arthur Orvis, Orvis Bros., John Murray, Henry Hentz & Co., Jos. B. Cleaver, Raclin, Snow & Cleaver, James Eblen, Eblen & Co., Morris Kullman, Kullman & Co., Dudley Bloodgood, United Africa Co., and all active members of the New York Produce Exchange.

— ♦ —

Application of General Vegetable Oil Co., New York, to register Snowsweet as a trademark for vegetable shortening has been refused by the U. S. Patent Office, in view of the earlier adoption by Southern Cotton Oil Co., New Orleans, of the mark, "Snowdrift" for the same type product.

RECORD OF TRADE-MARKS

The following trade-marks were published in the June issues of the *Official Gazette* of the United States Patent Office in compliance with Section 6 of the Act of September 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of publication. As provided by Section 14, fee of ten dollars must accompany each notice of opposition.

TRADE MARKS FILED

MELTA—This in solid letters describing artificial teeth cleaner. Filed by Melta Sales Agency, San Diego, Cal., March 30, 1935. Claims use since Nov. 15, 1934.

B—This solid letter, within square, describing special naphthas for cleaning purposes. Filed by Barnsdall Oil Co., Tulsa, Okla., April 1, 1935. Claims use since Oct. 1, 1931.

TRID—This on reverse plate describing insecticide. Filed by Wm. J. Hodgkinson, Jr., Brooklyn, March 30, 1935. Claims use since Nov. 19, 1934.

"ELEGANCE"—This in solid letters describing hand cleaner, shaving cream, soap powder, etc. Filed by Yardley of London, Inc., Union City, N. J., March 8, 1935. Claims use since Feb. 27, 1935.

FLORAL DESIGN, describing milk soap. Filed by Red Cross Pharmacy, Inc., Cleveland, Mar. 23, 1935. Claims use since 1904.

SAL-RICH—This in solid letters describing mouth wash. Filed by Sal-Rich Co., San Antonio, Texas, Mar. 29, 1935. Claims use since Sept. 2, 1932.

POS O TIV—This on reverse plate describing anti-septic powder. Filed by Diehl Research Laboratories, Los Angeles, Mar. 30, 1935. Claims use since Mar. 14, 1935.

CLEPO—This in solid letters together with five pointed star, within circle, describing cleaning preparation. Filed by Frederick Gumm Chemical Co., Union City, N. J., Apr. 1, 1935. Claims use since Apr. 24, 1933.

SPARKLING—This on reverse plate describing metal polish. Filed by Sparkling Co., Cincinnati, Apr. 10, 1935. Claims use since Apr. 6, 1935.

SLIK—This in heavy script describing polishes and cleaners. Filed by Jared Holt Co., Albany, Apr. 17, 1935. Claims use since Dec. 17, 1934.

PASCO—This in outlined letters describing cleansing compound. Filed by Fargason Co., Evansville, Ind., Mar. 30, 1935. Claims use since 1905.

MITEE—This in solid letters describing cleaning compound. Filed by John Sunshine Chemical Co., Chicago, Mar. 30, 1935. Claims use since Jan. 20, 1933.

VOR-SAL—This in solid letters describing tooth powder.

Filed by Vor-Sal Laboratories, Chicago, Apr. 2, 1935. Claims use since Aug. 15, 1934.

MINESE—This in solid letters describing antiseptic. Filed by Hilliard Products Co., Washington, Del., Apr. 6, 1935. Claims use since Mar. 10, 1935.

SHOO-MOTH—This in solid letters describing insecticide. Filed by Bloomingdale Bros., New York, Apr. 19, 1935. Claims use since Mar. 23, 1935.

ACTO—This in solid letters describing disinfectants, germicides, insecticides, etc. Filed by Pioneer Mfg. Co., Cleveland, Jan. 18, 1935. Claims use since July 13, 1933.

A • V • A—This in solid letters describing chemical deodorizer. Filed by Gibbs Mfg. Co., Canton, Ohio, Apr. 20, 1935. Claims use since Mar. 20, 1935.

MONITE—This in solid letters describing mothproofing materials. Filed by Monite Co., St. Louis, Apr. 22, 1935. Claims use since Dec. 30, 1933.

MYSTIC FOAM—This in solid letters describing cleaning preparation. Filed by Mystic Foam Co., Cleveland, May 3, 1934. Claims use since Dec. 15, 1933.

GETZ-ALL—This in solid letters describing soap. Filed by Getz-All Products Co., Portland, Oreg., July 23, 1934. Claims use since July 1, 1928.

CALGOLAC—This in solid letters describing detergent. Filed by Calgon, Inc., Pittsburgh, Nov. 28, 1934. Claims use since Nov. 2, 1934.

CALGONEASE—This in solid letters describing detergent. Filed by Calgon, Inc., Pittsburgh, Nov. 28, 1934. Claims use since Nov. 2, 1934.

DEW DROP—This in outline letters describing washing compound. Filed by Spazier Soap & Chemical Works, Santa Monica, Calif., Dec. 31, 1934. Claims use since Dec. 17, 1934.

PAD-O-MAGIC—This in solid letters describing cleaning pads impregnated with soap. Filed by Cleanser Products, Inc., Chicago, Apr. 13, 1935. Claims use since Apr. 5, 1935.

DIXIE WHITE—This in solid letters describing shoe polish. Filed by Jenco Bros., Inc., Paterson, N. J., Apr. 16, 1935. Claims use since Mar. 1, 1935.

ARMOR—This in solid letters, with sketch of knight, describing shoe polish. Filed by Morrison-Atlas Products, Inc., Chicago, Apr. 29, 1935. Claims use since Apr. 16, 1935.

ATLAS—This in solid letters describing cleaning compound. Filed by Atlas Supply Co., Newark, N. J., May 1, 1935. Claims use since Feb. 15, 1934.

STREAMLINE—This in solid letters describing soaps. Filed by Lockwood Brackett Co., Boston, May 2, 1935. Claims use since Feb. 16, 1935.

H S P—This in solid letters within rectangle, describing deodorant, disinfectant, insecticide, germicide, etc. Filed by Superior Home Products Co., Pittsfield, Mass., Oct. 26, 1934. Claims use since Oct. 1, 1934.

MEDICA-DENT—This in solid letters describing dentifrices. Filed by Medica-Dent Mfg. Co., Seattle, Dec. 28, 1934. Claims use since January, 1932.

CURADERM—This in solid letters describing germicide. Filed by Curaderm Laboratories, New York, Apr. 18, 1935. Claims use since Mar. 8, 1935.

SANI-SAFE—This in outline letters describing rat and mouse exterminant. Filed by Hacker Products Corp., Brooklyn, Apr. 19, 1935. Claims use since Mar. 15, 1933.

TRADE MARKS GRANTED

324,811. Cleaner. Pawley Chemical Co., Cohoes, N. Y. Filed November 26, 1934. Serial No. 358,650. Published March 26, 1935. Class 4.

324,846. Chemical Preparation. Doak Co., Cleveland. Filed December 19, 1934. Serial No. 359,531. Published March 26, 1935. Class 4.

324,855. Moth Repellent. Ralph Gretsche & Co., New York. Filed January 16, 1935. Serial No. 360,309. Published March 19, 1935. Class 6.

324,868. Deodorants. Cosmos Chemical Corp., New York. Filed January 24, 1935. Serial No. 360,623. Published March 26, 1935. Class 6.

324,903. Cleaner. Bert E. Black, Cincinnati. Filed February 12, 1935. Serial No. 361,310. Published March 26, 1935. Class 4.

324,911. Soap. Los Angeles Soap Co., Los Angeles. Filed February 8, 1935. Serial No. 361,175. Published March 26, 1935. Class 4.

324,953. Shoe Polish and Cream. Manhattan Kreole Products, Inc., Brooklyn. Filed January 7, 1935. Serial No. 359,995. Published March 26, 1935. Class 4.

324,988. Soap. Sherwin-Williams Co., Cleveland. Filed January 25, 1935. Serial No. 360,686. Published March 26, 1935. Class 4.

324,989. Insecticides, Fungicides and Flocculators. Sherwin-Williams Co., Cleveland. Filed January 25, 1935. Serial No. 360,685. Published March 26, 1935. Class 6.

325,043. Insecticides. Louisiana Disinfectant Co., Leesville, La. Filed February 14, 1935. Serial No. 361,406. Published April 2, 1935. Class 6.

325,047. Antiseptic. Schering Corp., Bloomfield, N. J. Filed February 15, 1935. Serial No. 361,442. Published April 2, 1935. Class 6.

325,073. Shoe Cleaner, Polish and Dressing. Diamond Products Mfg. Co., New York. Filed February 18, 1935. Serial No. 361,529. Published April 2, 1935. Class 6.

325,188. Toothpaste. Norsec Co., Jersey City, N. J. Filed December 20, 1934. Serial No. 359,518. Published April 2, 1935. Class 6.

325,196. Shaving Cream. Ye Olde Co., Brooklyn.

Filed December 5, 1934. Serial No. 358,942. Published April 2, 1935. Class 4.

325,220. Antiseptic. K. & S. Laboratories, Inc., Denver. Filed January 25, 1935. Serial No. 360,671. Published April 9, 1935. Class 6.

325,329. Preparation for Exterminating Rats and Mice. Corn Fix Co., Newark, N. J. Filed February 4, 1935. Serial No. 360,992. Published April 9, 1935. Class 6.

325,333. Antiseptic and Bactericide. Louis Clement, New York. Filed February 1, 1935. Serial No. 360,954. Published April 2, 1935. Class 6.

325,379. Insecticides, Fungicides and Flocculators. Sherwin-Williams Co., Cleveland. Filed January 7, 1935. Serial No. 360,003. Published April 9, 1935. Class 6.

325,415. Soap. Otten and Lundahl, Chicago. Filed December 17, 1934. Serial No. 359,398. Published April 16, 1935. Class 4.

325,432. Agricultural and Animal Insecticides. S. B. Penick & Co., New York. Filed February 8, 1935. Serial No. 361,183. Published April 16, 1935. Class 6.

325,433. Agricultural and Animal Insecticides. S. B. Penick & Co., New York. Filed February 8, 1935. Serial No. 361,182. Published April 16, 1935. Class 6.

325,440. Bleaching and Disinfective Tablets. Midland Chemical Co., Chicago. Filed February 4, 1935. Serial No. 361,021. Published April 16, 1935. Class 6.

325,451. Antiseptic. Upjohn Co., Kalamazoo, Mich. Filed February 16, 1935. Serial No. 361,489. Published April 16, 1935. Class 6.

325,452. Antiseptic. Upjohn Co., Kalamazoo, Mich. Filed February 16, 1935. Serial No. 361,488. Published April 16, 1935. Class 6.

325,480. Preparation for Cleaning and Whitening Shoes. Sno-Kote Co., New York. Filed March 2, 1935. Serial No. 362,096. Published April 16, 1935. Class 4.

325,498. Polish. Jayzan, New York. Filed Feb. 21, 1935. Serial No. 361,685. Published April 16, 1935. Class 4.

325,513. Boiler Compound. Sugar Beet Products Co., Saginaw, Mich. Filed January 28, 1935. Serial No. 360,807. Published April 16, 1935. Class 6.

325,514. Boiler Compound. Sugar Beet Products Co., Saginaw, Mich. Filed January 28, 1935. Serial No. 360,806. Published April 16, 1935. Class 6.

325,547. Shoe Polish. Rand Products Co., Worcester, Mass. Filed January 4, 1935. Serial No. 359,928. Published April 16, 1935. Class 4.

325,552. Tooth Powder. Dox Co., Hastings, Nebr. Filed January 19, 1935. Serial No. 360,433. Published April 16, 1935. Class 6.

325,797. Polish. Wonder Wax Manufacturing Co., Cleveland. Filed January 10, 1934. Serial No. 345,869. Published April 23, 1935. Class 16.

Dr. Victor Fourman, chief chemist for Compagnie Parento, Inc., Croton-on-Hudson, N. Y., reports the arrival of a young son, Richard Fourman, last month.



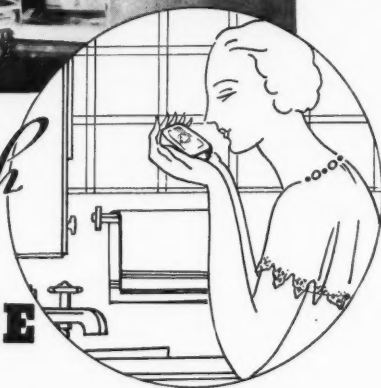
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Business

135. American Colloid Sales Division, Chicago, has issued a new series of bulletins on the technology and industrial uses of bentonite. Subtitles include the following: Functions of Bentonite in Washing; Bentonite as an Ingredient of Soaps, Cleaning Compositions and Polishes; Use of Bentonite in Insecticides and Fungicides; Use of Bentonite in Laundries. The company will send free copies of data sheets on specific subjects. A charge of \$2.00 is made for the complete set of 37 bulletins.

136. Alsop Engineering Corp., New York, is introducing a new labeling machine called the "Hy-Speed Stixit". The new machine is said to save considerable time and labor that is ordinarily wasted in rubbing and wiping labels on bottles. Can be used with any type label paster or gummer. No power required.

137. Hinde & Dauch Paper Co., Sandusky, Ohio, has available for mailing a new booklet called "Modern Box Design" which deals with the design and appearance of corrugated fibre shipping boxes.

138. Anchor Cap & Closure Corp., L. I. City, N. Y., is mailing a folder describing its new "Anchor Amerseal Can Nozzle and Cap". In this new development the company is applying to tin can closures the sealing principle which it has used for years on glass containers. Advantages are ease of application and ready removability. Further details are available on request.

139. Paterson Engineering Co. has recently introduced a new vibratory screen for use on either liquid or solid material. One of the features of the new equipment is its ability to adjust vibration to suit the material being handled. The vibratory motion is obtained from a self contained motor. A folder giving further details is available.

140. Standard Silicate Co., Pittsburgh, has issued a booklet listing the commercial grades and properties of

"Standard" silicate, and describing the principal uses of the product. Copies available.

141. Huntington Laboratories, Huntington, Ind., has issued a catalog describing its complete line of sanitation products for the hospital, including, soaps, dispensing equipment, disinfectants, insecticides, floor products, etc.

142. Bethlehem Foundry & Machine Co., Bethlehem, Pa., has issued a loose leaf book illustrating and describing the various types of chemical processing equipment manufactured by the company for various industrial purposes. Among the apparatus illustrated are jacketed kettles, crutchers, thermocoil vessels, roasters, beaters, scrapers, etc. Copies of the book are obtainable on request.

New Patents

Conducted by

Lancaster, Allwine & Rommel

Registered Attorneys

PATENT AND TRADE-MARK CAUSES

815 15th St., N. W., Washington, D. C.

Complete copies of any patents or trade-mark registration reported below may be obtained by sending 25c for each copy desired to Lancaster, Allwine and Rommel. Any inquiries relating to Patent or Trade-Mark Law will also be freely answered by these attorneys.

No. 2,000,004, Insect Repellent, Patented May 7, 1935 by Elmer W. Adams, Hammond, Ind., assignor to Standard Oil Company of Indiana, Chicago, Ill. An insectifuge comprising a mineral oil solution of an alkyl benzoate, wherein the alkyl group contains from one to six carbon atoms.

No. 2,000,843, Composition for Killing Insects, Patented May 7, 1935 by Paul Janke, Ascona, Switzerland, assignor to Dehne & Co., Orbono-Gesellschaft, Brissago, Switzerland. The herein described composition for destroying obnoxious insects and fungi, which consists of a mixture of 33 parts of soft soap, 11 parts of a 2 per cent cresol soap solution, 17 parts of a 10 per cent watery tobacco extract, 22 parts of a 1/2 normal-potassium permanganate solution, 17 parts of vegetable glue, and from 1/4 to 2 parts of alcohol.

Fats, oils, waxes and resins are extracted from raw materials by treatment in an extractor with solvent vapors under pressure. Suction is generated by a low pressure produced by condensation of the vapors and by an induced draft at the end of the apparatus which is applied to the vapor exit of the extractor. Alfred R. Jahn. British Patent No. 413,041.

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CONTRACTS AWARDED

In a recent bidding covering scouring compound for the U. S. Post Office Department, Du Bois Soap Company, Cincinnati, entered three low bids as follows: 984 bbls. zone 1, 1.62c; 462 bbls. zone 2, 1.96c, and 123 bbls., zone 3, 2.4c. A low bid of 1.49c was also entered by the same company on another lot of 14,000 lbs. soap scouring compound.

H. Kohnstamm & Co., Chicago, was recently awarded a contract for 3,060 lbs. chip soap for Quartermaster Depot, Chicago, at 7.99c.

Conray Products Co., New York, has been awarded 4,025 lbs. chip soap at 6.78c lb. for Washington Marine Corps. Armour & Co., Chicago, awarded 42,000 lbs. soap powder at 2.68c, and 7,000 cans cleanser at 2.5c. H. Friedman & Sons, New York, awarded 532 packages of cleaner at 13.25c. Swift & Co., Chicago, awarded 564 lbs. grit soap at 8.03c. Iowa Soap Co., Burlington, Iowa, awarded 6,250 lbs. toilet soap at 6.56c.

Hunnewell Soap Co., Cincinnati, awarded 7,800 cakes grit soap for St. Louis Quartermaster Depot at 2c. Colgate-Palmolive-Peet Co. awarded 148,620 lbs. laundry soap at 2c.

Iowa Soap Co., Burlington, Iowa, in a recent Rock Island U. S. Engineers bidding was awarded a contract covering 3,750 lbs. toilet soap at \$231.75, as well as 4,200 lbs. of washing powder at \$110.46. Armour & Co., Chicago, awarded 9,000 lbs. laundry soap at \$337.50.

Dixie Supply Corp., San Antonio, Texas, awarded contracts as follows for laundry soap for Sam Houston U. S. Army Quartermaster: 247,000 lbs. at 3.9c, 480 lbs. at 3.9c and 19,020 lbs. at 3.9c. Colgate-Palmolive-Peet Co. awarded 21,840 lbs. laundry soap at 4.66c, and 11,700 lbs. at 4.44c. Day & Frick, Phila., awarded 7,300 cakes grit soap at 3.1c and 7,300 cakes at 2.8c.

J. L. Prescott Co., Passaic, N. J., was recently awarded a contract for 40,000 cakes stove polish for Chicago Quartermaster at a price of 3.5625c. Solarine Co., Baltimore, awarded 3,000 cans metal polish at 8.9c. Libman Broom Co., Tuscola, Ill., awarded 25,000 rattan brooms at 3.85c.

Awards have recently been made as follows for miscellaneous supplies for Benecia Arsenal, Calif.: Henry C. Hacke, San Francisco, 4,400 lbs. trisodium phosphate at 3.14c lb.; Braun-Knecht-Heimann Co., San Francisco,

2,500 lbs. naphthalene at 4.75c and 2,500 lbs. at 4.35c; John Rothschild, San Francisco, 480 pints liquid metal polish at 10c pt., and Pioneer Soap Co., San Francisco, 6,000 lbs. leather equipment soap at 6.9c lb.

Mefford Chemical Co., Los Angeles, has been awarded a contract covering a quantity of flake naphthalene for the U. S. Army Quartermaster at Fort Mason, Calif., at a price of 4.5c.

Pioneer Soap Co., San Francisco, has been awarded a contract covering a quantity of chip soap for the U. S. Army Quartermaster at Fort Mason, Calif., at a price of 7.04c and a quantity of laundry soap at 7.29c. Emeryville Chemical Co., Emeryville, Calif., awarded quantity of laundry soda at 1.65c.

John Sexton Co., Chicago, awarded a contract for type B cake grit soap for St. Louis U. S. Army Quartermaster at a price of 2.19c. Iowa Soap Co., Burlington, Ia., awarded quantity of laundry soap at 3.62c.

Alex C. Ferguson Co., Philadelphia, has been awarded a contract calling for 10,000 lbs. flake naphthalene for Philadelphia U. S. Army Quartermaster at a price of 3.98c.

A new whale oil fleet is being constructed by a firm located in Wesersmunde, Germany, whose annual productive capacity it is estimated will be 30,000 tons of whale oil a year. German demand for whale oil for edible purposes has been increasing substantially over recent years due to the rapid development of the German margarin industry. During the first four months of 1935, Germany's whale oil imports totaled 105,000 tons, and further agreements have recently been concluded calling for an additional 50,000 tons for prompt shipment. During the best previous year, 1932, only 234,000 tons were imported for the entire year.

Suggestions for revision of the United States standards for rosin will be considered at a meeting to be held in Washington, July 16. The meeting is scheduled for 10:00 A.M. in room 2050 of the South building of the Department of Agriculture, and any rosin consumer is eligible to attend to take part in the discussion. If modifications in the present standards are found desirable, they will be promulgated by the Secretary of Agriculture, and will go into effect six months after issuance.

Market Report on TALLOW, GREASES, AND OILS

(As of July 8, 1935)

NEW YORK—A startling development in the market for soapmaking oils and fats this period was the complete collapse in coconut oil prices. Manila oil, which only two months ago was priced at 53½c lb., is now down around 35½c, having slumped a cent and a quarter in the past month. Some of this drop may be accounted for by the lower copra prices, but an even more important factor in the domestic market is the complete strike of buyers over the past two months. The effect of this drop in coconut oil prices communicated itself sympathetically to the rest of the market, with the result that practically all oil and fat prices are off from previous levels. Another development during the period was the opening of the new tallow futures exchange in New York. Trading was started in tallow futures last month, and will now be a regular feature of this market.

COCONUT OIL

Copra dropped down to a basis of 2c per lb. this period, and coconut oil shuttled sharply from 5c down to 35½c. Local traders attribute the collapse to complete desertion of the market by the big buyers, whose lead has been followed by small users as well. What the future course will be is not yet clear, but many market watchers feel that further substantial declines are impossible since any further drop would bring European buyers into the market in a substantial way. United States has taken large quantities of tallow from the European market in recent months, and this deficiency in the European fat supply will eventually have to be compensated for. European buyers may at any moment take advantage of the low copra market to build up their stocks. Another factor which points away from any further drop is the fact that American buyers who have remained aloof from the market over recent months will eventually have to buy. As a matter of fact in the opinion of many it would be very difficult to buy any substantial quantity of coconut oil at present prices, and the reappearance of demand in any substantial volume would no doubt prompt at least a strong technical reaction upward.

CORN OIL

Corn oil was fractionally lower this period in agreement with the lower prices on competing oils. The current market is 8¾c lb.

PALM OIL

Palm and palm kernel oils dropped a quarter to a half cent a pound this period in sympathy with the drop in coconut oil. These reductions came in spite of rather light supplies.

TALLOW

At the close of the recent period tallow was off a half cent a pound from the levels of a month ago, with city extra quoted at 65½c lb. Demand has been light in view of the favorable prices on other soap making raw materials. A new development in the tallow market this period was the opening of a tallow futures market on the floor of the New York Produce Exchange. To date trading in futures has not been heavy, although it seems apparent that buyers welcome this new addition to the trading machinery.

OILS AND FAT PRICE INDEX LOWER

The oils and fats price index, as compiled by the Bureau of Raw Materials for American Vegetable Oils and Fats Industries, decreased from 108.2 in April to 106.2 in May. This index was 71.6 in May of last year. The index numbers of various oils and fats for the months of April, 1935; May, 1935, and May, 1934, are as follows:

	May 1935	April 1935	May 1934
Corn oil	144.7	157.2	90.0
Cottonseed oil	165.7	163.6	73.2
Coconut oil	56.6	57.9	38.3
Grease	110.0	107.1	57.0
Olive oil	98.6	101.6	105.8
Olive oil foots	115.4	118.2	98.1
Palm oil	62.0	64.4	37.3
Palm kernel oil.....	52.3	52.6	39.0
Tallow	98.0	94.9	50.8
Whale oil	116.9	116.9	103.4

"AMO-LINE" CITED BY F. T. C.

Vincent Maggiore, Canton, Ohio, operating as Amo-Line Co., and manufacturing a cleanser and water softener, has been accused of unfair competition in a complaint filed by the U. S. Federal Trade Commission. Maggiore, selling his product under the name "Amo-Line", packed it in cartons of the same size and similar in other characteristics to the carton used by the Climallene Co., of Canton, a competing manufacturer of a cleanser and water softener known as "Climallene", according to the complaint. Friday, August 9, has been designated by the Commission for the respondent to show cause why an order to cease and desist from the practices charged in the complaint should not be issued.

Stocks of refined cottonseed oil on hand in United States as of May 31, 1935, totaled 540,788,322 lbs., as against 804,945,801 lbs. a year previous, according to statistics of the U. S. Dept. of Commerce. Stocks of crude oil were 46,402,867 lbs., May 31, 1935, as against 76,318,151 lbs., May 31, 1934.

Market Report on SOAP AND DISINFECTANT CHEMICALS

(As of July 8, 1935)

NEW YORK—Activity in the market for soap and disinfectant chemicals eased off in the period just ended under the influence of seasonal recession in productive schedules. Buying was at a slow pace, with most chemical users keeping stocks at a minimum and buying only sufficient material to take care of replacement needs. The only price changes of any importance came in the rosin group, with the lighter grades easing off from previous levels. Prices of alkalis and coal tar products were unchanged.

ALKALIS

Only a routine demand for alkalis was noted this period, with buying rather irregular. A fair amount of caustic potash and caustic soda moved out to the soap trade to take care of replacement needs, as activity in the soap industry has held up comparatively well. Prices were unchanged and decidedly on the firm side in spite of the lack of buying activity.

COAL TAR PRODUCTS

The market for crude naphthalene continued to be characterized by firmness this period, with reports from abroad indicating that material for import might in the near future be held at a higher price. The local schedule on refined naphthalene held firmly in spite of the fact that demand has lately shown signs of easing off. Cresylic acid was in fair demand, with synthetic resin users exerting the principal buying influence. Tar acid oils were in rather slack demand, but prices were firmly maintained.

GLYCERIN

Glycerin prices were unchanged all along the line this period, as supply and demand seemed to be just about in balance at the present level of prices. Saponification glycerin is quoted currently at 10½ to 11c lb.

PYRETHRUM

Prices of insect powder and pyrethrum extracts continued to drop this period under the influence of the heavy crop and the lower prices quoted from primary markets on future deliveries. The market for Japanese powder now ranges between 22c and 25c lb.

ROSIN

Rosin prices eased off this period, due to the continuation of rather liberal receipts while demand, both foreign and domestic, shows no tendency to broaden. The medium and pale grades showed the most tendency toward price weakening, with the darker grades showing little change. The following range of quotations is quoted currently on the various grades: gum rosin, grade B, \$4.75; H, \$5.45; K, \$5.52; N, \$5.90; WG, \$5.95; X, \$6.65; wood, \$4.20 to \$5.75.

The U. S. import duty on linseed oil fatty acids, and other vegetable oil fatty acids not specifically provided for, will be 20 per cent ad valorem in the future, rather than 10 per cent, according to a recent ruling of the U. S. Treasury Department. This ruling does not affect oil foots which will continue to come in at 10 per cent as waste not specially provided for.

C. T. Small, formerly head of the C. T. Small Mfg. Co., St. Louis, whose plant was destroyed by fire last December, has purchased the buildings and equipment of the Robert Jacobs Engine & Machine Co., 211 Choteau Ave., St. Louis, where he is now manufacturing a new line of filling, capping and double seaming machines for filling cans, jars and bottles. The concern is being operated as the C. T. Small Development Company. Mr. Small advises that he has now fully recovered from the serious accident which occurred three years ago.

FORAGERS HOLD ANNUAL OUTING

The yearly summer outing of the Foragers, organization of toilet goods salesmen, was held June 29 at Green Gables, Monmouth Beach, N. J. As in previous years the entertainment program included a number of track events, followed by a baseball game. A shore dinner was served in mid-afternoon. The trip both to and from Green Gables was made by boat. A number of very attractive prizes were awarded to winners in the various events, the awards being made at a luncheon, at the Herald Square Hotel, July 10th. Movies were taken at the outing and these will be shown Wednesday noon, July 17, at another luncheon meeting of the organization at the Herald Square Hotel.

POWDERED SOAPS

(From Page 23)

content of the soap is higher than it should be. It is also greater in proportion to the mass of soap packed in a single container, occurring in barrels more often than in small boxes where the air can reach the center of the package. It seems to occur in powders made from the unsaturated oils to a greater extent than in the case of saturated fats. In some cases, the heat generated is so great as to completely carbonize the soap in the center of the barrel.

In conclusion, since pure powdered soaps require almost exacting skill in manufacture, they are produced today substantially "chemically pure" so that the ultimate user of these products may formulate his own finished products and maintain over a period of time, uniformity which is so continually being sought after by the trade.

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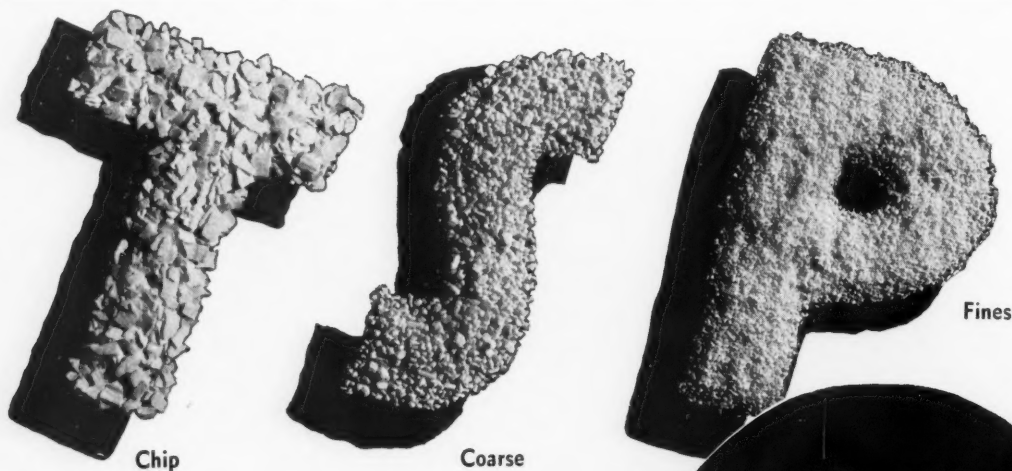
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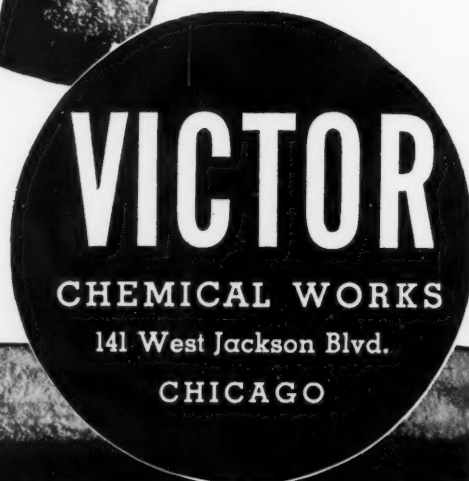
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Market Report on ESSENTIAL OILS AND AROMATICS

(As of July 8, 1935)

NEW YORK—The market for essential oils and perfuming materials was seasonally quiet this period, with buying largely confined to small lots for replacement purposes. With new crop oils coming in shortly on many items, buyers were not anxious to have stocks any higher than necessary until they see what the outlook on the new crops will be. More of a trading tendency was exhibited by sellers in this situation, with the result that prices weakened moderately on a number of items. Those oils which were priced lower included anise, bergamot, cassia, citronella, and peppermint. The market was not without its elements of strength, however, and birch tar crude, Messina orange and petitgrain oils were all quoted higher.

ANISE OIL

The downward trend in silver bullion and Chinese exchange continued this period, with the result that anise oil again eased off a few cents a pound. The current quotation is now 50 to 60c per pound.

BERGAMOT OIL

Quotations on bergamot oil were reduced in some quarters this period, with the inside price now being \$1.25 per pound. In spite of the light demand and the presence of considerable competition in the spot market, however, the higher priced brands were held unchanged.

BIRCH TAR

Quotations on birch tar crude were advanced two cents a pound this period, bringing the current range up to 14c to 16c per pound. There was also a firmer tendency in rectified oil, although the actual market price was unchanged.

CASSIA OIL

The same factors responsible for the shading of anise oil prices also contributed to a two cent drop in cassia prices. The current quotation is now \$1.48 to \$1.60 per pound.

CITRONELLA OIL

The extremely low prices which are being received by cable on replacement stocks of citronella oil have weakened the spot market considerably, with dealers anxious to reduce their carryover before new oil starts to come in. The result has been the lowest prices in some time on Ceylon oil, which is quoted currently at an inside price of 23c per pound.

LAVENDER OIL

Lavender oil was again available at \$2.55 per pound this period and spike oil could also be obtained at some concessions in the local market, although the higher priced brands in each case continue to be held at previous levels. The primary markets continue firm.

PETITGRAIN OIL

The spot market for petitgrain has advanced this period to the basis of \$1.00 to \$1.15 per pound, previous low quotations of 95c per pound having been eliminated.

FRITZSCHE BROS. MOVE OFFICES

Fritzsche Bros., Inc., New York, importers and dealers in essential oils and aromatic chemicals, whose Beekman Street offices were severely damaged in a recent fire, have signed a lease on 75,000 square feet of floor space in the Port Authority Commerce Building at 111 Eighth Ave., New York, and expect to move to the new quarters about September 1. This makes one more prominent essential oil house to leave the Cliff and Beekman Street district of downtown New York, which over such a long period of years was the geographical center of the essential oil industry.

Fritzsche's new offices will cover more than one-half of the twelfth floor of the Port Authority Building, and will represent the second largest single unit in the building. Air-conditioning and refrigerating equipment is being put in and the latest developments in laboratory apparatus and equipment will be embodied in the newly equipped laboratories which are being installed. Shipping facilities at the new location will be very handy, as a freight station, railway express office and a post office sub-station are all located on lower floors of the building.

TRADE BETTER, SAYS LEVER HEAD

An optimistic note was sounded concerning world trade by Lord Leverhulme when he returned to Liverpool recently on the Canadian liner *Duchess of Bedford* after a three months' tour of the world, during which he visited the overseas associated companies of Lever Bros., Ltd. "I have found, generally speaking," said Lord Leverhulme, "a hopeful tone in India. The boycott of British goods has subsided. In China, trade is passing through a critical period. I found prospects most satisfactory both in America and Canada."

H. J. Ahles, western sales representative with offices in Chicago, has given up his old sales connection on vanilla beans, and now will handle this product exclusively for Arthur A. Stilwell & Co., N. Y. Mr. Ahles has previously had the Stilwell account on essential oils and perfuming compounds.

Dermal Chemical Co. has been organized in Jersey City, N. J., by Eli Gershonowitz to manufacture chemicals. Headquarters are at 15 Exchange Place.

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CURRENT PRICE QUOTATIONS

(As of July 8, 1935)

Minimum Prices are for car lots and large quantities. Price range represents variation in quotations from different suppliers and for varying quantities.

Chemicals

Acetone, C. P., drums.....lb.	\$.11	\$.12½
Acid, Broic, bbls., 99½%.....ton	95.00	100.00
Cresylic, 97½ dk., drums.....gal.	.43	.44
97-99%, pale, drums.....gal.	.46	.47
Low boiling grade.....gal.	.64	.65
Oxalic, bbls.....lb.	.11½	.12¼
Adeps Lanae, hydrous, bbls.....lb.	.16	.18
Anhydrous, bbls.....lb.	.17	.19
Alcohol, Ethyl, U. S. P., bbls.....gal.	4.16	4.28
Complete Denat., No. 5, drums, ex. gal.	.35½	.43½
Alum. Potash lump.....lb.	.03½	.03¾
Ammonia Water, 26°, drums, wks.....lb.	.02½	.02¾
Ammonium Carbonate, tech., bbls.....lb.	.08	.12½
Bleaching Powder, drums.....100 lb.	2.15	3.50
Borax, pd., cryst., bbls., kegs.....ton	50.00	55.00
Carbon Tetrachloride, car lots.....lb.	—	.05¼
L. C. L.....lb.	.07	.08½
Caustic, see Soda Caustic, Potash Caustic		
China Clay, filler.....ton	10.00	25.00
Cresol, U. S. P., drums.....lb.	.11	.11½
Creosote Oil.....gal.	.11½	.12½
Feldspar.....ton	14.00	15.00
(200 to 325 mesh)		
Formaldehyde, bbls.....lb.	.06	.07
Fullers Earth.....ton	15.00	24.00
Glycerine, C. P., drums.....lb.	.14	.14½
Dynamite, drums.....lb.	.13¾	.14¼
Saponification, drums.....lb.	.10½	.11
Soap lye, drums.....lb.	.09½	.10
Hexalin, drums.....lb.	—	.30
Kieselguhr, bags.....ton	—	35.00
Lanolin, see Adeps Lanae.		
Lime, live, bbls.....per bbl.	1.70	2.20
Mercury Bichloride, kegs.....lb.	.71	.76
Naphthalene, ref. flakes, bbls.....lb.	.04¾	.05¼
Nitrobenzene (Myrbane) drums.....lb.	.09	.11
Paradichlorobenzene, bbls., kegs.....lb.	.16	.25
Petrolatum, bbls. (as to color).....lb.	.02	.07¼
Phenol, (Carbolic Acid), drums.....lb.	.14¼	.16
Pine Oil, bbls.....gal.	.59	.64
Potash, Caustic, drums.....lb.	.06¼	.06½
Flake.....lb.	.07	.07¼
Potassium Carbonate, solid.....lb.	.07¼	.09½
Liquid.....lb.	.03½	.03¾
Pumice Stone, powder.....100 lb.	3.00	4.00
Rosins (600 lb. bbls. gross for net) —		
Grade B to H, basis 280 lbs.bbl.	4.75	5.45
Grade K to N.....bbl.	5.52	5.90
Grade WG and X.....bbl.	5.95	6.65
Wood.....bbl.	4.20	5.75
Rotten Stone, pwd. bbls.....lb.	.02½	.04½
Silica.....ton	20.00	27.00
Soap, Mottled.....lb.	.04¾	.04¾
Olive Castile, bars.....lb.	.13	.19
powder.....lb.	.23	.30
Olive Oil Foot.....lb.	.07	.07½
Powdered White, U. S. P.....lb.	.19	.21
Green, U. S. P.....lb.	.06½	.08
Tallow Chips.....lb.	.07¼	.07¾
Whale Oil, bbls.....lb.	.05	.06
Soda Ash, cont., wks., bags, bbls. 100 lb.	1.23	1.50

Car lots, in bulk.....100 lb.	—	\$1.05
Soda Caustic, cont., wks., sld.....100 lb.	—	2.60
Flake.....100 lb.	—	3.00
Liquid, tanks.....100 lb.	—	2.25
Soda Sal., bbls.....100 lb.	1.10	1.30
Sodium Chloride (Salt).....ton	11.40	14.00
Sodium Fluoride, bbls.....lb.	.07¼	.08¾
Sodium Hydrosulphite, bbls.....lb.	.19	.20
Sodium Silicate, 40 deg., drum.....100 lb.	.80	1.20
Drums, 52 deg. wks.....100 lb.	1.35	1.75
Tar Acid Oils, 15-25%.....gal.	.21	.24
Trisodium Phosphate, bags, bbls.....lb.	.03	.03½
Zinc Oxide, lead free.....lb.	.06	.06¼
Zinc Stearate, bbls.....lb.	.20	.22

Oils — Fats — Greases

Castor, No. 1, bbls.....lb.	.10¼	.11
No. 3, bbls.....lb.	.09¾	.10½
Coconut		
Manila, tanks, N. Y.....lb.	—	.03¾
Tanks, Pacific coast.....lb.	—	.03¼
Cod, Newfoundland, bbls.....gal.	—	.35
Copra, bulk, coast.....lb.	—	.02
Corn, tanks, mills.....lb.	.08¾	.09
Cottonseed, crude, tanks, mill.....lb.	.08½	.08¾
PSY.....lb.	—	Nom.
Degras, Amer., bbls.....lb.	.05¼	.06
English, bbls.....lb.	.04¾	.05½
Neutral, bbls.....lb.	.08	.11
Greases, choice white bbls., N. Y.....lb.	.07	.07¾
Yellow.....lb.	.06¼	.06¾
House.....lb.	.06¾	.06¾
Lard, City.....lb.	.15	.15¼
Compound tierces.....lb.	.12½	.12¾
Lard Oil,		
Extra, bbls.....lb.	—	.11¾
Extra, No. 1, bbls.....lb.	—	.11
No. 2, bbls.....lb.	—	.10¼
Linseed, raw, bbls., spot.....lb.	.0930	.0970
Tanks, raw.....lb.	—	.0870
Boiled, 5 bbls. lots.....lb.	—	.1050
Menhaden, Crude, tanks, Balt.....gal.	.28	Nom.
Oleo Oil, No. 1, bbls., N. Y.....lb.	—	.12½
No. 2, bbls., N. Y.....lb.	—	.11½
Olive, denatured bbls., N. Y.....gal.	—	.83
Foots, bbls., N. Y.....lb.	.08	.08¼
Palm.....lb.	.04¼	.04½
Palm Kernel, casks, denatured.....lb.	.04¼	Nom.
Peanut, domestic tanks.....lb.	.09	Nom.
Red Oil, distilled bbls.....lb.	.09½	.10½
Saponified bbls.....lb.	.09½	.10½
Tanks.....lb.	—	.08¾
Soya Bean, domestic tanks, N. Y.....lb.	—	.09
Stearic Acid,		
Double pressed.....lb.	.11¼	.12¼
Triple pressed, bgs.....lb.	.14	.15
Stearine, oleo bbls.....lb.	.09¼	.09½
Tallow, special, f.o.b. plant.....lb.	—	.06½
City, ex. loose, f.o.b. plant.....lb.	—	.06¾
Tallow, oils, acidless, tanks, N. Y.....lb.	—	.10¼
Bbls., c/1 N. Y.....lb.	—	.10¾
Whale, refined.....lb.	.07¾	.08



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(As of July 8, 1935)

Essential Oils

Almond, Bitter, U. S. P.....lb.	\$2.00	\$2.50
Bitter, F. F. P. A.....lb.	2.25	2.75
Sweet, cans.....lb.	.58	.60
Anise, cans U. S. P.....lb.	.50	.60
Apricot, Kernel, cans.....lb.	.22	.25
Bay tins.....lb.	1.25	1.50
Bergamot, coppers.....lb.	1.25	1.90
Artificial.....lb.	1.00	1.30
Birch Tar, rect. tins.....lb.	.70	.75
Crude, tins.....lb.	.14	.16
Bois de Rose, Brazilian.....lb.	1.25	1.60
Cayenne.....lb.	2.40	2.90
Cade, cans.....lb.	.26	.30
Cajuput, native, tins.....lb.	.50	.60
Calamus, tins.....lb.	3.25	3.50
Camphor, Sassy, drums.....lb.	—	.19
White, drums.....lb.	—	.20
Cananga, native, tins.....lb.	2.50	2.80
Rectified, tins.....lb.	2.95	3.50
Caraway Seed.....lb.	1.95	2.20
Cassia, Redistilled, U. S. P.....lb.	1.48	1.60
Cedar Leaf, tins.....lb.	.53	.70
Cedar Wood, light, drums.....lb.	.20	.27
Citronella, Java, drums.....lb.	.28	.33
Citronella, Ceylon, drums.....lb.	.23	.29
Cloves, U. S. P., tins.....lb.	.90	.92
Eucalyptus, Austl., U. S. P., cans.....lb.	.27	.30
Fennel, U. S. P., tins.....lb.	1.00	1.25
Geranium, African, cans.....lb.	4.90	7.00
Bourbon, tins.....lb.	4.75	6.75
Hemlock, tins.....lb.	.70	.75
Lavender, U. S. P., tins.....lb.	2.55	7.00
Spike, Spanish, cans.....lb.	.95	1.60
Lemon, Ital., U. S. P.....lb.	1.00	1.50
Lemongrass, native, cans.....lb.	.70	.80
Linaloe, Mex., cases.....lb.	1.35	1.50
Nutmeg, U. S. P., tins.....lb.	1.20	1.35
Orange, Sweet W. Ind., tins.....lb.	2.00	2.45
Italian cop.....lb.	1.90	3.10
Distilled.....lb.	.65	.70
Origanum, cans, tech.....lb.	.60	.70
Patchouli.....lb.	2.75	3.50
Pennyroyal, dom.....lb.	1.85	1.90
Imported.....lb.	1.35	1.70
Peppermint, nat., cases.....lb.	2.40	2.90
Redis., U. S. P., cases.....lb.	2.60	3.05
Petit, Grain, S. A. tins.....lb.	1.00	1.15
Pine Needle, Siberian.....lb.	.85	.95
Rose, Natural.....oz.	5.50	18.00
Artificial.....oz.	2.00	3.00
Rosemary, U. S. P., tins.....lb.	.32	.38
Tech., lb. tins.....lb.	.28	.35
Sandalwood, E. Ind., U. S. P.....lb.	5.00	5.50
Sassafras, U. S. P.....lb.	.75	1.00
Artificial.....lb.	.45	.50
Spearmint, U. S. P.....lb.	1.75	1.85
Thyme, red, U. S. P.....lb.	.58	1.02
White, U. S. P.....lb.	.65	1.10
Vetivert, Bourbon.....lb.	12.75	14.00
Ylang Ylang, Bourbon.....lb.	4.60	7.00

Aromatic Chemicals

Acetophenone, C. P.....lb.	\$1.25	\$2.25
Amyl Cinnamic Aldehyde.....lb.	1.75	2.50
Anethol.....lb.	1.00	1.10
Benzaldehyde, tech.....lb.	.60	.65
U. S. P.....lb.	1.10	1.30
Benzyl, Acetate.....lb.	.56	1.00
Alcohol.....lb.	.65	1.15
Citral.....lb.	2.55	2.65
Citronellal.....lb.	2.05	2.50
Citronellol.....lb.	2.10	2.65
Citronellyl Acetate.....lb.	4.50	7.00
Coumarin.....lb.	3.10	3.30
Cymene, drums.....gal.	.90	1.25
Diphenyl oxide.....lb.	.85	1.25
Eucalyptol, U. S. P.....lb.	.62	.65
Eugenol, U. S. P.....lb.	2.00	2.50
Geraniol, Domestic.....lb.	1.25	2.00
Imported.....lb.	2.00	3.00
Geranyl Acetate.....lb.	3.00	3.50
Heliotropin.....lb.	2.00	2.10
Hydroxycitronellal.....lb.	3.50	9.00
Indol, C. P.....oz.	2.00	2.50
Ionone.....lb.	3.60	6.50
Iso-Eugenol.....lb.	3.00	4.25
Linalool.....lb.	1.65	2.25
Linalyl Acetate.....lb.	1.85	4.25
Menthol.....lb.	3.50	3.60
Methyl Acetophenone.....lb.	2.50	3.00
Anthranilate.....lb.	2.15	3.20
Paracresol.....lb.	4.50	6.00
Salicylate, U. S. P.....lb.	.40	.45
Musk Ambrette.....lb.	4.75	6.00
Ketone.....lb.	5.00	6.50
Xylene.....lb.	1.50	2.50
Phenylacetaldehyde.....lb.	4.80	8.00
Phenylacetic Acid, 1 lb., bot.....lb.	3.00	4.00
Phenylethyl Alcohol, 1 lb. bot.....lb.	4.00	4.50
Rhodinol.....lb.	5.75	8.00
Safrol.....lb.	.59	.60
Terpineol, C. P., 1,000 lb. drs.....lb.	.33	.35
Cans.....lb.	.36	.37
Terpinyl Acetate, 25 lb. cans.....lb.	.80	.90
Thymol, U. S. P.....lb.	1.40	1.50
Vanillin, U. S. P.....lb.	3.00	3.50
Yara Yara.....lb.	1.30	2.00

Insecticide Materials

Insect powder, bbls.....lb.	.22	.25
Concentrated Extract		
5 to 1.....gal.	1.50	1.70
15 to 1.....gal.	4.60	4.65
20 to 1.....gal.	6.00	6.25
30 to 1.....gal.	9.00	9.50
Derris, powder—4%.....lb.	.43	.46
Derris, powder—5%.....lb.	.48	.51

Gums

Arabic, Amb. Sts.....lb.	.11½	.12½
White, powdered.....lb.	.15½	.16½
Karaya, powdered No. 1.....lb.	.08	.09
Tragacanth, Aleppo, No. 1.....lb.	1.25	1.30
Sorts.....lb.	.11	.12

Waxes

Bees, white.....lb.	—	.33½
African, bgs.....lb.	.22	.23
Refined, yel.....lb.	.27	.28
Candelilla, bgs.....lb.	.11	.12
Carnauba, No. 1.....lb.	.42	.43
No. 2, yel.....lb.	.40	.41
No. 3, chalky.....lb.	.33	.34
Ceresin yellow.....lb.	.36	.38
Paraffin, ref. 125-130.....lb.	.04¼	.04½

CASTOR OIL
COCOANUT OIL
CORN OIL
COTTONSEED OIL
LARD OIL
NEATSFOOT OIL
OLEIC ACID
-RED OIL
OLIVE OIL
OLIVE OIL FEET
PALM OIL
PALM KERNEL OIL
PEANUT OIL
RAPESEED OIL
ROSEIN
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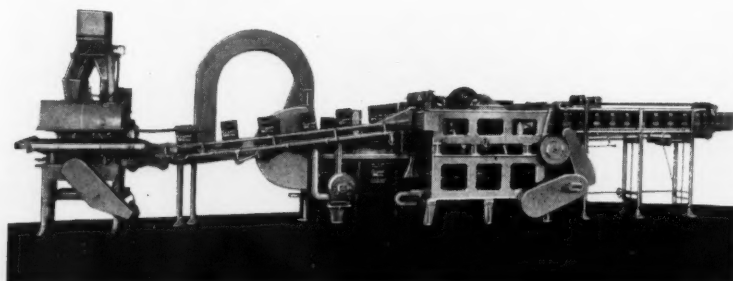
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BLEACHING POWDER
BORAX
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CARBON
TETRACHLORIDE
CALCIUM CHLORIDE
CAUSTIC SODA
CAUSTIC POTASH
DYES
DISODIUM PHOSPHATE
GLAUBERS SALTS
GLYCERINE
METASILICATE
OXALIC ACID
POSTASSIUM
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ALKALI EFFECTS ON GLASS BOTTLES

The comparative solubility of the glass of milk bottles in the various alkaline solutions used in the washing machines is discussed in the July issue of *Silicate P's & Q's* of the Philadelphia Quartz Co. The attack of caustic soda solutions on the glass dissolved 1.5 per cent in 80 hours against less than one per cent for a comparable solution of sodium metasilicate. The discussion stated in part:

"Milk bottles do not dissolve in the sense of completely disappearing when they are left standing in water, but in the presence of hot alkaline liquids the bottles lose weight and the character of the surface tends to alter. Solubility can hardly be ignored in the process of refining the technic of cleansing glass.

A comparatively recent development is the milk bottle bearing a colored advertisement. Bright colors of great variety and even designs with multiple colors are used to add to the attractiveness of the package while they serve the utilitarian purpose of making return to the right address more certain. By courtesy of the Harshaw Chemical Company of Cleveland we were enabled to investigate the solubility of these colored glasses in alkaline washing solutions, and have found that along with their relatively low melting point they are more soluble in alkaline solutions than the glass which constitutes the body of the bottles. The individual colors vary considerably in this respect but, as may easily be imagined, the effect is not the same for all alkaline solutions.

The general statement seems warranted that the presence of silica in the washing solution reduces the solvent effect of wash liquors on all kinds of glass. The amount dissolved is, of course, affected by time and temperature, by the amount and kind of silicate in solution as well as by the nature of the glass being tested. Our chart shows the progressive loss of weight of the same glass in a caustic solution and in a mixture of caustic and metasilicate. The solution concentrations were held constant at 1.5 per cent Na_2O and the temperature was just below the boiling point. The weight losses of the colored glasses which we have tested run from three to five times the amount measured on the clear bottle glass."

— ♦ —

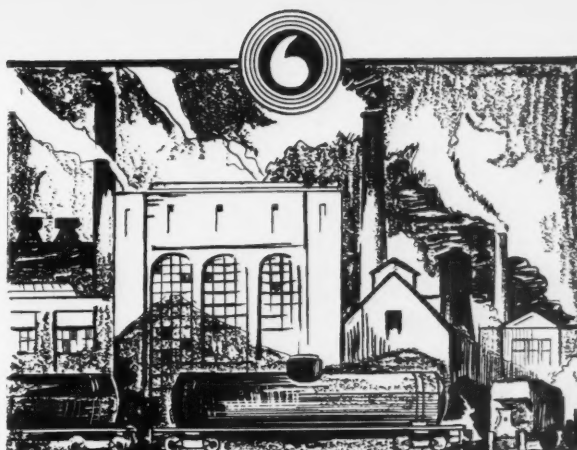
CHEMICAL GUIDE BOOK. 1935 (eleventh) edition. 4 $\frac{1}{4}$ x 9. 800 pages. The newest revised edition of this annual directory for the chemical industry is over a hundred pages larger than the previous edition, and contains listings for 153 new additional chemicals and 160 new chemical synonyms.

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Royal Crown Soap Co., Winnipeg, Canada, is planning a new three-story addition to its factory at a cost of \$200,000.

— ♦ —

Walter W. Templin has resigned as vice-president and director of Pepsodent Co., Chicago.



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PRODUCTION SECTION

A section of SOAP devoted to the technology of oils, fats, and soaps published prior to Jan. 1, 1932, as a separate magazine under the title, *Oil & Fat Industries*.

Cold-Made Floating Soaps

By FRED U. BLUMENTHAL

OF ALL the floating soaps manufactured in the United States, probably more than 90 per cent are made by incorporating air into the hot soap stock. Such a process requires expensive machinery, considerable labor and factory space. After the product is finished, it must be dried with great care, making certain that the drying compartments are particularly well ventilated. Recently, I had the experience of traveling from coast to coast and asking various chemists and soap-makers if they could make a cold-process floating soap. The answer was invariably "No." Or, "I never heard of such a thing,"—or, "It is quite impossible." However, cold-made floating soaps have been manufactured in Germany for several years by the simple reaction of an alkali on metallic zinc, aluminum, or magnesium.

During 1933, I had the privilege of spending six months at the Dr. Schuette and Julius Schaal laboratories in Hamburg and to have become fairly well acquainted with the cold manufacture of floating soap by the chemical method. I engaged in research with both full boiled and cold process soaps and found that the easiest way to use this process is with the cold-made soaps, because no variations in the process are necessary. However, when laundry soaps are to be made into floating types, great care must be taken that the soap stock is kept between 75 and 80 degrees C, as will be discussed a little further along.

As is quite well known, when a certain metal in powdered form are mixed with still hot soaps, the normally present alkali reacts with the metal with the liberation of hydrogen which forms bubbles in the soap mass. Being the lightest gas,—considerably lighter than air,—the hydrogen gives a buoyancy to the soap which in turn gives it its floating properties. Naturally, some metals react more rapidly with the alkali than others, the formation of hydrogen gas varying in proportion to the rate of reaction. Based on my experience

with the various powdered metals, I found that magnesium which reacts neither too rapidly nor too slowly, gives the best results.

With the formation of the hydrogen bubbles, they naturally tend to rise inasmuch as they are lighter than air. This upward movement and the expansion of the gas formed in minute quantities, gives microscopic bubbles about half the size of those formed by crutching in air, thus giving the finished soap a very smooth appearance. As the object of mixing in these metallic powders is to reduce the specific gravity of the soap below one, which is the gravity of water, it is naturally important to know what the minimum quantity is which can be used to accomplish this result. Only very low percentages are required to do the trick, from 0.03 to 0.05 per cent having been used with success.

The small expense of metallic powder is important from the angle of cost, but what is still more important, I have found, is that lower grade fats and oils can be worked into such soaps to advantage and with the minimum of discoloration of the finished product. Where darker oils or fats are used and the coloration is the result of oxidation products, the liberation of nascent hydrogen in the soap mass acts as an effective reducing agent and bleaches out much of the color. By the same token, this reducing action of the hydrogen tends to act as a preventive of rancidity by the removal of oxidation products in the beginning and by its presence in the finished soap,—that is if no free metal remains in the soap.

In the use of powdered aluminum, the remaining product after the reaction has taken place with the alkali is sodium aluminate which is harmless to the soap and to the user. However, I have found that aluminum in actual practice does not work out very well. Soaps made with it when exposed to air for two months, and sometimes much less, showed yellow rancid spots on the

surface. At first, I believed they were due to the absence of excess alkali, but tests showed an excess of 0.03 up to as high as 0.07 per cent. I had noted that a French chemist, M. Vohrer, stated that aluminum was a factor in preventing rancidity, but each time it was used, subsequent rancidity developed. Where powdered magnesium was substituted, there was no trouble and the soaps had the same appearance as when air was crutched into the mass. Consequently the only explanation which I can give is that the reaction of the aluminum was too slow and the finished soaps contained minute traces of metallic aluminum which acted as a catalyst in aiding the development of rancidity.

The process of manufacture is as follows: Introduce the melted fats and oils in the usual way and add the caustic soda. Just before the mixture is ready to be run into the forms, add 0.03 to 0.05 per cent of the powdered metal and be certain that it is mixed into the mass thoroughly. Make certain that 0.1 per cent excess of alkali is present when the product is supposed to be finished. Of course, the soap as it goes to the frames is not completely saponified and it actually contains more free alkali than this figure, but it should contain this 0.1 per cent excess calculated over that needed to complete the saponification. The metallic powder does not react appreciably at first with the alkali for if such were the case, most of the hydrogen would escape from the liquid mass. The spontaneous heating of the soap in the frames supplies the necessary heat to bring about the reaction of the metal and the alkali. Care should be taken not to fill the frames to the top because the liberation of the hydrogen causes the mass to rise very considerably in the frames. Any perfume which is used in cold-made soaps can be used here, such as benzyl acetate, citronellal, or even lavender, as long as the heat does not affect the odor.

When metallic powders are used with a full boiled soap, instead of using an Archimedian screw or a steam jacketed crutcher, about 0.07 to 0.1 per cent of metal is needed. The temperature of the soap should be about 70 to 80 deg. C. It is noted that a larger quantity of metal is required inasmuch as part of the gas escapes into the air. After thoroughly mixing the metallic powder with the soap stock, place immediately in frames and cool evenly, not too slowly and not too rapidly. If cooled too rapidly, part of the metal remains in the soap and is not reacted upon and may cause later rancidity. When cooled too slowly, too much gas may escape and the finished product may not float. A few experimental batches, however, soon indicates the correct procedure to the experienced soap maker.

The solid fraction filtered from the oil of Japanese sardines at 8-10° C. produced, on hydrogenation in the presence of a nickel-kieselguhr catalyst, an odorless fat melting at 28.9°, solidifying at 24.3°, with an iodine number of 94.7. M. P. Belopol'skii and O. B. Maksimov. *Bull. Far Eastern Branch Acad. Sci. U. S. S. R.* No. 9, 111-6.

ANTIOXIDANTS IN RANCIDITY

Antioxidants may be evaluated according to their ability to lengthen the induction period of lard and of lard-cod liver oil mixtures, as measured by oxygen absorption. Natural antioxidants which were fractions of the unsaponifiable lipids of wheat germ oil and palm oil were found to prolong the induction period of a fat in proportion to the amount of inhibitor used. The same general relationship held for the phenolic antioxidants, hydroquinone, *a*-naphthol, orcinol, thymohydroquinone, guaiacol and resorcinol,—that is, the induction period was proportional to the amount used.

At the end of the induction period the level of peroxide in lard or lard-cod liver oil mixtures was fairly uniform, irrespective of the length of the induction period or of the original peroxide content. In the case of a wheat germ oil inhibitor, the effectiveness varied inversely with the amount of peroxides in the fat mixture whether these had accumulated slowly or were added in the form of an oil of high peroxide content. Under such conditions there seemed to be a mutual destruction of antioxidant and active peroxides. Various difficulties were encountered in applying this method for studying rancidity development to different types of fats. Fundamental data must be obtained on purified fatty acids and esters rather than on natural fats of complex make-up. R. B. French, H. S. Olcott, and H. A. Mattill. *Ind. Eng. Chemistry* 27, 724-8 (1935).

Compounds giving an alkaline reaction are added prior to the distillation of materials containing compounds of fatty acids with alkylolamines, to facilitate the recovery of the free alkylolamines by suppressing amide formation. Steam and reduced pressure are preferably used, and any free alkylolamine may first be distilled off before adding the alkaline compounds. Extracts obtained in the removal of free fat and naphthenic acids by means of alkylolamines from liquid animal and vegetable oils, fats and waxes and resins are particularly suitable as raw material for the process. Volatile components such as methyl ketones, and low-boiling amines which are distilled with the first fractions of alkylolamines may be collected separately. The fatty acids remaining as residues may be recovered. Besides alkali and alkaline earth hydroxides and carbonates, soaps such as potassium oleate may be used. Walter J. Hund and Ludwig Rosenstein. British Patent No. 420,269.

A sulfonated product is made by treating aliphatic or cycloaliphatic alcohols containing not less than 10 carbon atoms with acetic anhydride to form the acetyl derivative, and removing excess acetic anhydride and any acetic acid formed. The acetyl derivative is treated with a strong sulfonating agent until the product will dissolve in water and not be precipitated by calcium salts. Richard P. McGlynn and Denis Ward. Canadian Patent No. 349,833.

High Temperature Saponification

THE original soap-boiling process, with various modifications, is still widely favored for practical manufacture. The drawbacks of the boiling process are that it is not a continuous procedure, large quantities of steam are required, and subsequent operations before the soap can be marketed are both lengthy and costly. Patents for the saponification of oils in autoclaves under pressure and at slightly elevated temperatures, for drying and bleaching, and other processes are taken out from time to time, without seriously altering the boiling method. A new process represented by British Patent No. 367,513 is described by C. M. Adcock in *The Industrial Chemist* 11, 181-2, 190 (1935).

The rate of a chemical reaction is a function of temperature. It was found that for very rapid saponification, a temperature of 250-300° C. is required. This introduces complications, for at this temperature soap normally decomposes. By limiting the reaction time to about 30 seconds and using a pressure of 800-1500 pounds per square inch, the soap formed is entirely stable. Soap is thus manufactured at what would be above its decomposition temperature under atmospheric pressure. A further advantage is that this high pressure ensures that water will be in the liquid state and consequently saponification takes place in the liquid phase, an essential factor for the success of the process.

It might be thought that working at high pressure would introduce more difficulties than it solved, but actually this is not the case. The process can be made continuous by carrying out the reaction in a tube. By keeping the diameter of the tube small, it is possible to work at high pressures perfectly satisfactorily. In the experimental plant, a tube of 1/8-inch bore was used without difficulty. The next problem was one of heating the reaction mixture adequately. In the experimental plant, the reaction coil was wound in a spiral and placed in a pot. A high boiling point-hydrocarbon oil was found to be the most satisfactory heating medium. This could be heated to 300° C. without entailing any pressure in the system or any appreciable deterioration in the oil.

The charge of fat or oil and 50 per cent caustic soda solution was mixed in the correct proportions and pumped into the saponification coil immersed in the oil bath at about 300° C. If hydrated soap was required, the saponified mixture was passed through either an air-cooled or water-cooled coil before discharging into the spraying chamber.

In a typical experiment, 2 kilograms of cottonseed oil were mixed with 800 grams of caustic soda solution and the whole saponified by pumping through the heating coil. The time of transit was about 30 seconds, giving a velocity of approximately 8 feet per second, so that a good transfer of heat was obtained. The glycerine produced was either retained in the soap or vaporized off from the soap, with the exception of about 2 per

cent. It is interesting to speculate whether the glycerine could be fractionally condensed from the dispelled steam and glycerine mixture, but this has not been tried out. Should this prove possible the expensive concentration of glycerine in vacuum evaporators would be avoided.

Such a process is extremely adaptable as it can produce soap of any degree of hydration by slight variation of the working conditions. Without using a cooling coil, a soap having an 85 per cent total fatty acid content was readily obtained, although such a soap was in the form of a very fine impalpable powder not easily adaptable to further treatment.

When the soap was cooled sufficiently to reduce the fatty acid content to about 70 per cent, the size of the soap particles could be varied by fitting suitable spraying nozzles to the end of the cooling coil. A coarse granulated soap was thus obtained, the particle size being of the same order as that of rice.

An interesting result is that pigments in many oils were bleached during the saponification process and hence the soap powders produced were always of a better color than would be expected of the original oils. Palm oil was especially noticeable in this respect. A certain amount of deodorization also occurred, so that soaps could be made from inferior oils.

If the theoretical quantities of soda ash and oil were used for saponification, it was found impossible to complete saponification owing to the liberated carbon dioxide tending to hydrolyze the soap formed. With a large excess of soda ash, however, complete saponification was obtained and a good white scouring soap produced.

The suggested arrangement of a plant is as follows: Two main storage tanks contain the oil and alkali, respectively, which are pumped in their correct proportions through a special mixer and then to a heat exchanger saponifier. The latter is constructed of stainless steel to avoid corrosion. Efficient heat transfer is maintained by rapid circulation of hot oil. The soap powder is sprayed into a special soap-spraying chamber. Efficient oil circulation is maintained by means of a reliable oil absorber. In this absorber the oil is circulated by means of a pump through a series of tubes in a furnace heated by flue gases from the combustion of oil, coke, coal or gas, to the correct temperature, and circulated to the vessel to be heated.

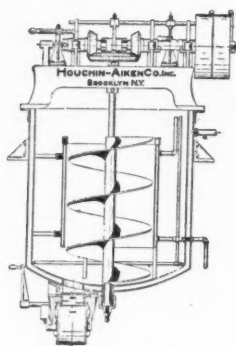
From the saponifier the soap is blown into a soap spraying chamber, or it is passed first through a cooler-coil to condense some of the water in the soap and so obtain a hydrated product. The great advantage of introducing 5-10 per cent of moisture is that the soap is more easily amenable to compression should soap cakes be required. A current of air is blown into the spraying chamber to cool the soap and carry away vaporized mois-

(Turn to Page 63)

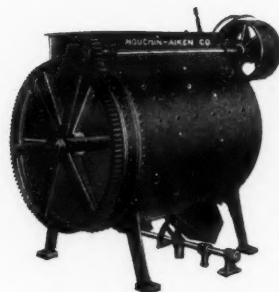
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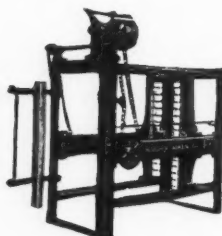
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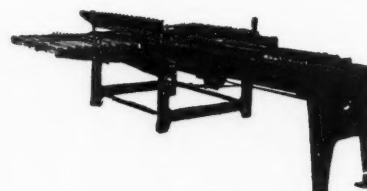
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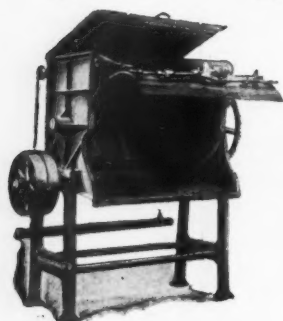
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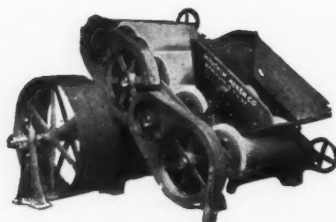
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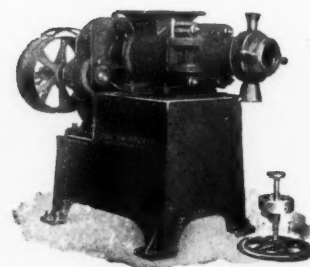
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Rancidity Causes Reviewed

SOAP manufacturers, oil technicians, etc., are all too familiar with the results of rancidity. A really adequate definition of rancidity is lacking, but it may be described as a condition of oily substances associated with a disagreeable smell and acrid flavor, the presence of a small per cent of volatile free fatty acid and a higher per cent of non-volatile free fatty acid. The fundamental conditions and mechanism of the change are not thoroughly understood. Oxidation plays an important part, but it is not the whole story. If it were, a drying oil would be at the height of rancidity when completely dried. At one time it was thought that rancidity was directly proportional to the free fatty acid content of the oil. But while it is admitted that the free fatty acid is more easily decomposed than the corresponding glyceride, the relation is no longer admitted.

Bacterial and enzymic action have come to the fore as causes of rancidity. The nitrogenous material which is necessary for the propagation of the lipolytic or fat-splitting bacteria is present in crude oil, but in the absence of nitrogenous material in the refined oil, the fat-splitting action is probably due to an enzyme produced by the bacteria. Such enzymes are sometimes quite resistant to heat.

Animal fats usually hydrolyze more rapidly when left in contact with the flesh, but in vegetable oils, there is a great difference in the effect of contact with the organic matter from which extracted. When cottonseed is kept in a sufficiently dry state, it preserves its oil very well, but oils such as palm oil and olive oil, surrounded in the cell by soft, easily decomposed, fleshy material, suffer heavy decomposition. Soya bean oils on exposure to the atmosphere, rapidly assume the character of blown or oxidized oils, while previous heating of the beans before crushing apparently destroys an enzyme, with improvement of the keeping quality of the oil. In oil seeds, enzyme action is not likely to occur, since it is improbable that the oil and enzyme will be in the same cells of the seed.

It is likely that the characteristic odors and flavors of rancid oil are due largely to a few particular bodies, although in the development of rancidity, it is certain that complex molecules are split into many simpler substances. The exact nature of the decomposition must also be dependent on conditions under which it occurs. A really definite test for rancidity would be the measurement of those substances responsible for flavor and odor. A general test would be the determination of the per cent change in composition of each constituent. However, such variation is found in the substances produced, that these tests cannot be used. The quite reliable test of taste and smell is one of the most satisfactory.

The Kreis test for aldehydes is one of the oldest tests. A criticism is that it is not a test for the substance

causing rancidity, but for substances usually occurring in rancid fats and oils. Also materials other than those found in rancid oils, such as lignin and substances found in the oil seeds, yield the red coloration.

The peroxide test is subjected to much criticism, but it is certain that the peroxide method of King and Irwin is so far one of the best for obtaining a definite numerical value. The method is only comparative, however. The induction period of the oxidation of fats will vary in time according to different factors, particularly the amount of anti-oxidants present. The second stage is a period of rapid oxidation, when the protective action of the anti-oxidants is overcome, and the oxidation of the unprotected fat may proceed normally. Oils which have been refined from the rancid state possess practically no induction period. Lecithin and purified gossypol from cottonseed are used as antioxidants.

The pro-oxidants or substances which accelerate oxidation of oils might well include some of the enzymes, although little work has been done on this phase of the problem. Oxidation is also accelerated by the action of metals and metallic salts. Metals have been found to catalyze this sort of action in the following decreasing order: Copper, lead, iron, zinc, tin and aluminum. C. C. Price. *Canadian Chem. & Met.* **19**, 134-5 (1935).

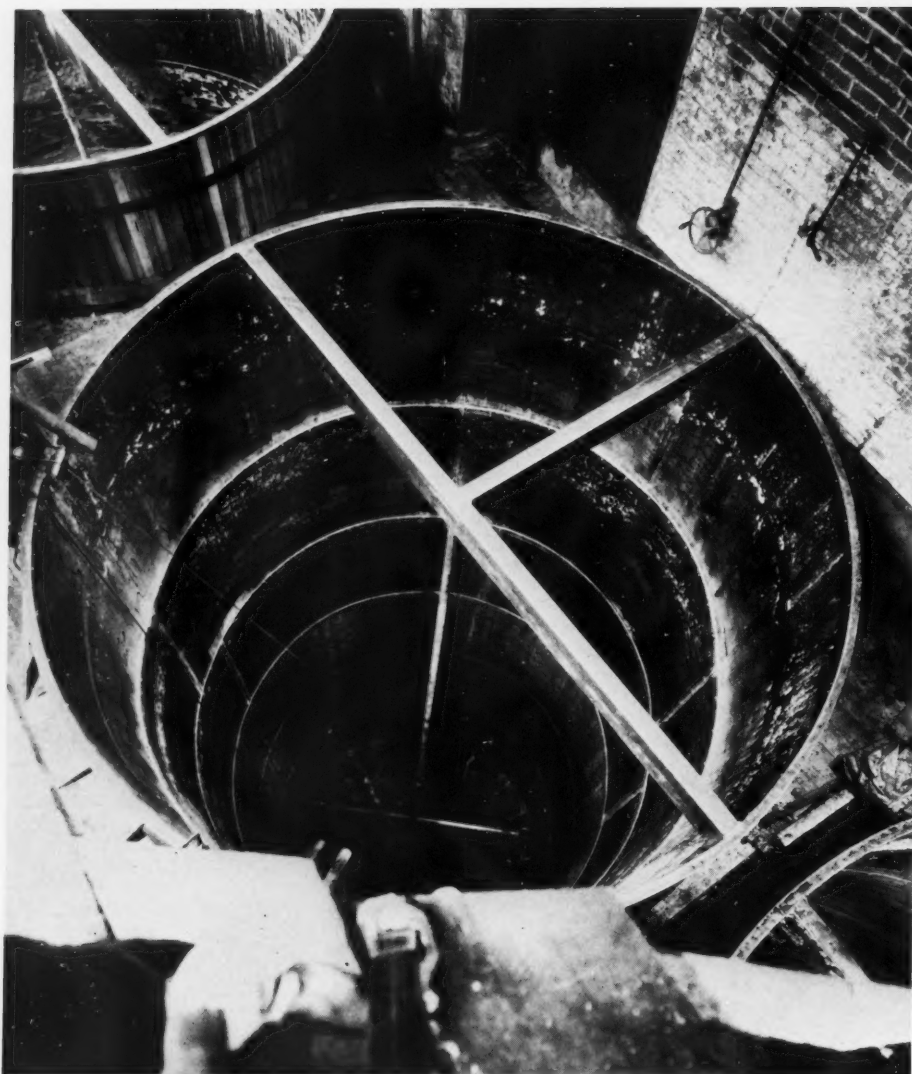
Koryan or kaloliang corn is second in importance to the soybean in Manchukuo. Solvent extraction gave 3.3 per cent of an oil containing 7.6-8.6 per cent of unsaponifiable matter. The unsaponifiable matter varied greatly in composition, depending on the solvent; it contained takakibyl alcohol, koryanyl alcohol, sitsterol, cetyl and similar alcohols. Seiichi Ueno and Riichiro Yamasake. *J. Soc. Chem. Ind., Japan* **38**, Suppl. binding 113-6 (1935).

The crystallization of fatty acids on glass proceeds with the formation of "ice flowers" differing in design with the origin of the acid. Marcellin Okrasinski. *Wiadamosci Farm.* **61**, 697-8.

HIGH TEMPERATURE SAPONIFICATION (From Page 61)

ture. The cooled, dry, granular soap powder is then collected in bags from a chute at the base of the drying chamber.

For a small commercial plant, the installation of an oil absorber may not be warranted, in which case the saponifier coil is immersed in an oil bath as in the experimental plant. A semi-continuous process also reduces the amount of special equipment necessary. It was found in practice that excess caustic soda was converted into soda ash. No free caustic soda was ever found in the soap. Provision must be made for ample cooling of the soap.



A new full size stainless steel soap kettle recently installed and now in operation in the plant of a prominent middle-western soap manufacturer. Another step in the refinement of modern soap boiling,—the trend toward stainless steel and nickel lined kettles for the manufacture of higher grade soaps.

Ucuhuba fat is obtained from the white *Virola surinamensis* Warb. and the red *Virola sebifera* Aubl., both growing along the lower region of the Amazon river. The commercial crude ucuhuba fat is yellow and is suitable for the manufacture of stearin. It dissolves in petroleum ether, and on heating a brown resin separates. The crude fat consists of petroleum-ether-soluble matter 90.8 per cent, ether-soluble resin 6.4, insoluble matter 0.5 and volatile matter 2.4 per cent. Purified ucuhuba fat is obtained by dissolving in petroleum ether, boiling with decolorizing carbon, filtration and evaporation. The seeds of *V. surinamensis* extracted with petroleum ether gave 65.1 per cent of extracted ucuhuba fat, similar but lighter in color than crude ucuhuba fat. The following are characteristics of crude ucuhuba fat and the fat extracted from the seeds, respectively: iodine number 17.0, 10.9, saponification number 220.7, 223.9, acid number 26.5, 8.4, Reichert-Meissl number 1.5, 1.6, Polenske number 3.7,

4.0, n_D^{70} 1.4445, 1.4446, melting point 47°, 51° C., unsaponifiable matter 1.1, 2.2 per cent. The average saponification value for the fatty acids from crude, purified, and seed fat is 236 and the average molecular weight 238. The fatty acids consist of lauric 12.6 per cent, myristic 63.2, palmitic 8.4, stearic 1.5, oleic 6.3, linoleic 2.8 and resinous matter 5.2 per cent. Alph. Steger and J. van Loon. *Rec. trav. chim.* 54, 149-57 (1935).

Fats hydrolyzed in the presence of activated charcoal give fatty acids and glycerine of improved color and quality. The charcoals must have been strongly activated and carefully washed with acid, preferably with dilute hydrochloric acid, which reduces the ash content to a minimum and facilitates hydrolysis. The adsorbed fat can be recovered from the charcoal by extraction with a suitable solvent, gasoline giving best results. After extraction the charcoal must be reactivated. A. I. Rabinovich. *Chimie & Ind.* 32, 1406.

ON PRODUCTS AND PROCESSES

Floating soap is made by incorporating a small proportion of silicon into hot curd soap, so that bubbles of hydrogen are formed in the soap. The formation of blisters on the surface of the cooled soap may be avoided by addition of a concentrated solution of casein, pectin, tragacanth or like material. J. G. Mouson & Co. German Patent No. 611,045.

The application of alternating current in oil hardening at 200° C. gave an odorless oil without the occurrence of polymerization. The velocity of hydrogenation increased with rising voltage up to a saturation point. When direct current was used, the nickel catalyst suspended in the oil was deposited on the cathode and the time required to separate the catalyst increased with decreasing iodine numbers of the hardened oil. Alternate application of alternate current and direct current permits a continuous cycle, giving first increased hydrogenation velocity and then catalyst separation. The same catalyst could be used 38 times before its activity diminished. Iwawo Seto. *J. Soc. Chem. Ind., Japan* 38, Suppl. binding 85-6 (1935).

The distillation of fatty acids yields residues whose properties depend both on the materials subjected to distillation and the distillation process itself. With increasing severity of distillation conditions, both the decomposition of fatty materials and the formation of asphalt increase, with the result that the residues formed tend to assume, to an increasing extent, the character of hard pitches. Thus on passing from fatty tars to soft pitches and then to hard pitches, analytical data show that the saponification number decreases, the acid number varies irregularly, the specific gravity increases somewhat, while the increasing asphalt content is the best criterion for differentiating between the various types of products. C. Stiepel. *Seifensieder-Ztg.* 62, 161-3, 195-6 (1935).

Soap-like products are made by reducing the fatty acid radicals of natural fats and waxes to alcohols by catalytic hydrogenation at high pressures, and temperatures above 200° C., in the presence of a hydrogenating catalyst, converting said alcohols into sulfonic acids by treatment with a sulfonating agent, and forming alkaline metal salts of said sulfonic acids. Sulfuric acid ester and sulfo products may also be produced. Walther Schrauth. Canadian Patent No. 350,826.

Triethanolamine, with or without paraffin oil, is added to the usual mixture for shaving cream and soap. Laszlo Szigethy. Hungarian Patent No. 111,897, April 1, 1935.

Fatty esters containing unesterified hydroxyl groups are prepared by the reaction of a triglyceride of a fat or fatty oil with a polyhydric alcohol in the presence of an alkaline catalyst, while removing water vapor from the reactive medium by means of a stream of inert gas or by vacuum distillation. Suitable catalysts include soaps, alcoholates and alkaline materials which react with fatty acids to form soap. In examples, coconut oils is caused to react with glycerine in the presence of soap flakes, nitrogen being passed through the mixture; also hydrogenated cottonseed oil is caused to react with ethylene glycol in a similar manner. The products are used as emulsifying agents for mixtures of fatty or mineral oils with water. Procter & Gamble Co. British Patent No. 421,284.

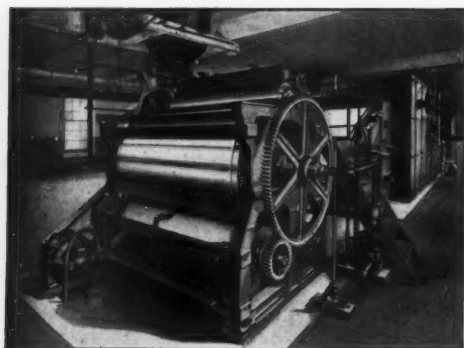
Products useful as wetting, emulsifying and cleansing agents are made by mixing waxes, wax alcohols, or other higher aliphatic alcohols with aromatic hydrocarbons, phenols, ketones, carboxylic acids or other compounds capable of being sulfonated or condensed, and then treating with concentrated or fuming sulfuric acid and a halohydrin of sulfuric acid. Oranienburger chem. Fab. A.-G. German Patent No. 609,456.

In the spoilage process of fats and oils, attention is directed to the similarity in the transformation of maleic to fumaric acid to that of oleic to elaidic acid. No rearrangement of butendial occurs, but rather a direct splitting off of CO. Richard Neu. *Pahrm. Zentralhalle* 76, 65-70 (1935).

A textile assistant is produced by the reaction of lauric aldehyde with glycerine, and treating the resulting product with chlorosulfonic acid. I. G. Farbenind. A.-G. Canadian Patent No. 351,045.

Believing that it was impossible to isolate the high-molecular weight fatty acids which naturally occur free in beeswax, by fractional crystallization alone, high-vacuum distillation was also used. Approximately 20 per cent of the free fatty acids of beeswax were found to consist of tetracosanoic acid, melting at 83.7-84° C. It was identified by comparing the constants with the synthetic acid and by a mixed melting point determination. "Cerotic acid", formerly considered to be the main constituent of the free acids of beeswax, was fractionated into a number of fractions. It probably represents a mixture of tetracosanoic acid with its higher homologs. M. Mattissohn. *Fettchem. Umschau* 41, 235-7; 42, 5-9, 53-7.

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KIESELGUHR ON OILS AT HIGH TEMPERATURES

The polymerizing action of kieselguhr on oils was studied with the oil of the Japanese sardine, freed from the solid fraction by filtration at 15° C. and then treated with caustic soda and bleached with a clay called tonzil. The oil was heated with stirring in a current of carbon dioxide at 250° C. for five hours, with and without the addition of 10 per cent of commercial and two kinds of Kahlbaum kieselguhr activated at 450° C. To study the effect of soluble oxides in kieselguhr, these were removed with sulfuric acid, while the influence of adsorbed air and moisture was investigated by heating at 3 mm. pressure in a current of carbon dioxide.

It was concluded that kieselguhr accelerates the polymerization of oils. At 250° the polymerization is accompanied by a partial decomposition of the oils with the formation of free acids. *In vacuo* kieselguhr has very little effect. No direct relation was observed between the degree of polymerization of oil by kieselguhr and its composition. Heating the oil with 25 per cent of kieselguhr at 250° does not affect the properties of the solid acids, that is, no isomerization of the acids of the oleic series takes place. M. P. Belopol'skii and O. B. Maksimov. *Bull. Far Eastern Branch Acad. Sci. U. S. S. R. No. 9*, 117-24.

ADSORPTION FROM SOAP SOLUTIONS

Soap is adsorbed from aqueous solutions at all types of interfaces. Soap foam, continuously removed from an aqueous solution by carbon dioxide-free air, was found to be less alkaline than the original solution while the latter became progressively more alkaline. Addition of alkalis to soap solution decreased the selective effect and modified the character of the foam. When air, carbon black, paraffin oil and pure olive oil were brought in contact with soap solution, the aqueous medium became more alkaline and acid soap was adsorbed at the interface. Fuller's earth, olive oil containing free fatty acid, wool and silk in soap solutions adsorbed soap and alkali at the interface and the aqueous solution became more acid. Cotton showed no selective adsorption and adsorbed a relatively small amount of soap. These results accord with the theory that acid soap exists in dilute solution as a result of hydrolysis. Harvey A. Neville and Milton Harris. *Am. Dyestuff Reporter* 24, 312-4 (1935).

Alkyl derivatives of guanidine or salts thereof, in which the alkyl groups contain at least 8 carbon atoms are used as assistants in aqueous baths for the treatment of textiles. Heinz Hunsdiecker and Egon Vogt. British Patent No. 421,862.

Analyses of the gas produced by rancid oils showed an evolution of a relatively high proportion of hydrogen. This seems paradoxical, as rancidity results from oxidation. No explanation is offered at the present time. J. T. R. Andrews. *Oil & Soap* 12, 104-5 (1935).

VEGETABLE OIL IN ANIMAL FAT

A micro method for qualitatively separating the sterols in fats as their acetates led to the detection of 2 per cent of peanut oil when added to lard. After the sterol acetate is separated, a practical phytosterol acetate test is carried out by merely determining the melting point of the crystals which melt last. A graph of the melting points of mixtures of pure phytosterol acetate of vegetable origin and cholesterol acetate of animal origin, plotted as a function of their composition shows that a maximum melting point is observed with 50 per cent and a minimum melting point with 90 per cent of phytosterol acetate. On plotting the melting point of sterol acetates obtained from mixtures of lard and sunflower-seed oil, a maximum melting point was found with 25 per cent and a minimum with 75 per cent of the latter. This displacement of both maximum and minimum is probably due to a higher sterol content of the vegetable oil. The shape of the curve indicates that additions of small amounts of sunflower-seed oil to animal fat cause a disproportionately large increase in the melting point of the mixed sterol acetates obtained from the fat mixture. The new method requires less time and smaller amounts of reagents and sample than previous methods. Difficulty was experienced in detecting additions of coconut oil to lard, owing to the low sterol content of the former. L. Kofler and E. Schaper. *Fettchem. Umschau*, 42, 21-6 (1935).

Oil is extracted from animal or vegetable cellular materials such as nuts or sesame seeds by comminuting the material and treating with 15 per cent or less of a liquid that is miscible with the oil, but not with water, e.g., peanut oil or a hydrocarbon oil. This is then mixed with 30 per cent or more of water and the extracted oil layer that rises to the surface removed. The ground material may be heated before treatment and the water may be heated and may contain a dissolved salt to increase its specific gravity. Further oil may be extracted by passing hot air through the residual mash or by fermentation with the aid of an enzyme such as diastase, with simultaneous passage of air through the mass. Oil that remains after this treatment may be passed out. Hugh E. J. Peake and Ellerman's Arracan Rice & Trading Co. British Patent No. 421,049.

By the use of a spectrophotometric method with 1 per cent solutions of olive oil in hexane, it was found that virgin or "extra" olive oils have an absorption coefficient at 2700 Å. of less than 0.200. Higher values indicate either a refined oil or a mixture of refined and virgin oils. This therefore serves as a guide to the commercial treatment to which the oil has been subjected. J. Guillet. *Ann. fals.* 28, 69-75 (1935).

A washing and cleaning agent consists of a pyrophosphoric acid ester or its alkali salt of a higher aliphatic alcohol. H. Th. Boehme A.-G. Canadian Patent No. 350,546.

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WORKING WASTE SOAP LIQUORS

Waste soap liquor is collected in cement tanks. On cooling, part of the soap floats as a crust and is skimmed off. The separated liquor is boiled with sufficient lime to precipitate all fatty acids present as calcium soap. Boiling is continued until no more foam is formed at the surface of the liquid. This takes from 1½ to 3 hours. After several hours, the clear supernatant liquid is siphoned off. This treatment is repeated in the same boiler with successive batches of waste liquor without removal of the calcium soap, until a sufficient amount of the latter has been formed to make it worth while to convert it into sodium soap by boiling for 2 to 3 hours with saturated soda ash solution. D. Kaufman. *Chimie & Ind.* **31**, 1171.

— ♦ —
To determine sediment in vegetable oils, add to 15 cc. of sample in a special centrifuge tube shaped somewhat like a milk-analysis bottle, 3 cc. of a saturated solution of calcium chloride in hydrochloric acid and 5 cc. of acetone. Shake, let stand two or three minutes, centrifuge for 15 minutes at 1,500-2,000 r.p.m., read the volume of sediment collected in the narrow part of the tube, which is graduated in 0.02 cc., and multiply by 6.6 to obtain the percentage. This method showed that the increase in sediment in oils that have been strongly cooled to -25 or -30° C. is merely apparent, and is due to the increased volume of the precipitated solids through swelling, and not to a further precipitation on cooling. D. Kraft. *Chimie & Ind.* **32**, 1406-7.

— ♦ —
The fluctuations in the Wijs iodine number of the oil from various kinds of sea animals is due not only to difference in species, age and sex, but also to variations in the kind, amount and composition of their food. This can be shown by a study of the iodine numbers of oils obtained from various species of whales taken during a series of seasons in different geographic districts. The seasonal variations in the iodine number of herring oil suggest that during the summer, when food is abundant and the fish are fattening rapidly, the tendency is toward formation of oil having a higher iodine number. The more highly unsaturated fats are consumed first during the winter when scarcity of food compels the fish to live on its own fat. Jakob Lund. *Fettechem. Umschau.* **42**, 49-52 (1935).

— ♦ —
Sulfonated aliphatic alcohols can be determined in solution by reaction with benzidine-hydrochloride, which gives a precipitate. The latter is determined by titration with standard potassium hydroxide solution. Alfred F. Kertess. *Textile Mfr.* **60**, 336.

— ♦ —
In an apparatus for the continuous extraction of vegetable oils and fats, the materials and extracting agent pass into counter current through two concentric cylindrical vessels. Fried. Krupp Grusonwerk A.-G. French Patent No. 770,153.

SOAPMAKING TRENDS

Soap production in the United States tends toward flake and powdered soap manufacture, and for certain trades such as silk hosiery, liquid detergent products. Manufacturers of floating soap frequently add 1 to 2 per cent of 40° Bé. Sodium silicate solution to prevent rancidity and to make the soap smoother. A number of anti-oxidants have been used in recent years. These may be added to the fat before saponification or to the soap in the crutcher. Another means of overcoming discoloration is the addition of 1 per cent of titanium oxide. This imparts an opaque whiteness and tends to offset the yellowish effect caused by some perfumes on soap. It also makes the suds more creamy in appearance. Strict chemical control of raw materials and processes is practiced in most plants. Small manufacturers often buy their soap and base their success on compounding it with soda ash, trisodium phosphate, sodium metasilicate, etc. There is a considerable field for specialties for the textile trade, wire drawing, metal cleaning, janitors' supplies, paper makers, tanneries, etc. Benjamin Levitt. *Soap, Perfumery and Cosmetics Trade Review* **8**, No. 5, 45 (1935).

— ♦ —
Methods for determining the active ingredients and total fatty matter in sulfonated and sulfated oils are discussed and compared. A method called the "total active ingredients method" is recommended as standard for the determination of fatty matter in sulfonated oils, and the dilute-acid decomposition method as an alternative. Details of procedure are given. The total active ingredients method consists essentially of extracting the original sample with a solvent over concentrated salt solution, purifying the extract, and weighing the residue. The content of fatty matter, which is considered to be practically unchanged in composition and weight from that in the original sample, is obtained from the residue by subtracting the organically combined sulfate group. The latter value is obtained by the usual methods. In the acid decomposition method, the sample is boiled with acid, the fat extracted, the solvent evaporated, and the residue dried and weighed. Ralph Hart. *Am. Dyestuff Reporter* **24**, 284-93 (1935).

— ♦ —
An apparatus for the rapid determination of surface tension and the effectiveness of wetting agents measures the rise of liquid in a capillary tube by means of a steel scale. The surface tension of solutions of several wetting agents in water decreased with increase in concentration between 0.1 and 1.0 per cent. Max Stiller. *Chem.-Ztg.* **59**, 208-9 (1935).

— ♦ —
A wetting preparation for alkali mercerizing dyes comprises phenolic fractions of low-temperature coal-tar boiling between 200 and 300°C., mixed with pine oil or terpeneol. Oleic or other fatty acid may also be added. Charles Dunbar and Stephen H. Oakeshott. British Patent No. 419,154.

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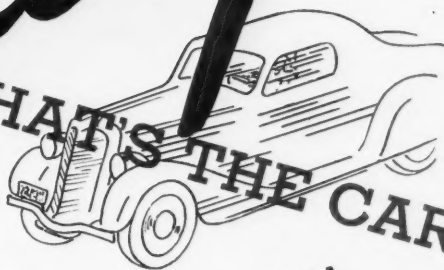
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ALTHOUGH pyrethrum was used in large quantities for many years, information concerning it was fragmentary and contradictory until the last decade. As recently as 1924, each of the following statements was in circulation, or could be substantiated by reference to the current literature:

- ★ "The best powder is made from all-closed Dalmatian flowers."
- ★ "Dalmatian flowers are superior to Japanese."
- ★ "The flowers should be harvested before the buds expand, the smaller, the better. Half-open flowers are not so desirable and open flowers are almost worthless."
- ★ "The best criterion for the value of pyrethrum is the determination of the ether extract."
- "Pyrethrum acts by suffocation, clogging the breathing apparatus of insects."
- "The toxic properties are due to a volatile oil."
- ★ "Flowers kept in sealed jars for five years do not deteriorate."
- ★ "Ground flowers are not injured by exposure in an open dish for eight months."

The first four of these opinions were generally accepted by the trade and formed the basis on which business was transacted.

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1—Developed a method of evaluating pyrethrum flowers, now recognized as the most conservative, most accurate method, and used officially in Japan and Dalmatia.

(J. Am. Chem. Soc. 51, 3054-64, 1929)

2—Produced the first standardized pyrethrum concentrate, Pyrocide 20—now used in more than forty countries, and accepted as THE FIRST STANDARD BRAND,—the basis for all comparisons.

(Ind. Eng. Chem., 24, 988-91, 1932)

3—Disproved the closed-flower theory. Showed that mature flowers are higher in pyrethrin content than immature. This revolutionized flower culture

(J. Am. Chem. Soc. 52, 680-4, 1930)

4—Proved that commercial Japanese pyrethrum is much more toxic than Dalmatian. This led to studies to improve the quality of the Dalmatian flowers, in which our laboratory cooperated with the Government of Yugoslavia and established the Government testing laboratory at Split, Jugoslavia.

(J. Am. Chem. Soc. 52, 684-8, 1930)

(Soap, 9, No. 7, 82-5, 1933)

5—Determined the relative toxicity of pyrethrins I and II. While this point is still a subject of debate, it was clearly shown in the laboratory of one of the authors of the Peet-Grady method, that pyrethrin II is approximately 80% as toxic to flies as pyrethrin I.

(J. Am. Chem. Soc., 52, 3300-7, 1930)

6—Showed the effect of storage, light and heat on flowers,—progressive loss of activity was established and upset manufacturing conventions and traditions, leading to the adoption of concentrates for uniform killing power at low cost.

(Ind. Eng. Chem., 24, 901-3, 1932)

7—Demonstrated that pyrethrum flowers must be ground so that pyrethrins could be more completely extracted; that the achenes must be broken.

("Pyrethrum Flowers," 1933)

8—Investigated the effect of storage, light and heat on solutions of pyrethrum, both concentrates and finished insecticides,—eliminated the trade practice of packing insecticides in glass.

(Ind. Eng. Chem., 24, 988-91, 1932)

9—Showed that the Seil acid method of assaying pyrethrum flowers gives results averaging 12% higher than copper reduction method, which eliminated confusion in purchasing specifications.

("Soap", Vol. X, No. 9, 89, Sept., 1934)

10—Conducted the most extensive examination into the culture of pyrethrum leading toward the establishment of a new profitable crop for American farmers. (Being continued.)

(Colo. Agr. Exp. Sta. Bull., 401, 1-19, 1933)

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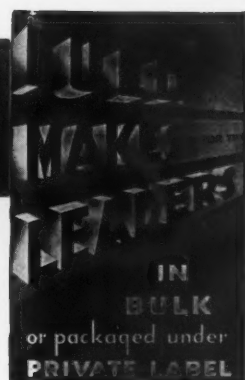
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A Section of SOAP

Official Publication, Nat'l. Assn. of Insecticide & Disinfectant Manufacturers

The Editorial View

IN ten years, electromagnetic and various ray equipment for the eradication of insect pests will completely do away with the necessity for insecticides, according to the development department of one of the large manufacturers of electrical equipment. Killing moths, bedbugs, and other hidden insects by x-ray, flies and mosquitoes by electrocution, and agricultural pests by other electrically developed rays,—this is the picture he draws. There is no doubt but that a wide advancement in the use of electrical devices for insecticidal purposes may come if we are to believe reports from various and sundry points. However, we are just pessimistic enough,—or optimistic, as the case may be,—to believe that more insecticides than ever will be sold ten years hence in spite of other developments.

FOR some time, we have heard reports that the markets on the eastern seaboard were flooded with low-grade adulterated, and misbranded disinfectants. At least partial substantiation of these reports comes from the examination recently of three or four samples picked up at random. All were adulterated and represented unquestioned violations of the law. That this adulteration is not new is quite well known to legitimate manufacturers. It continues to injure their business, but owing to the fly-by-night character of the distributors of the misbranded products, there is very little which they can do about it. The Food and Drug Administration is likewise handicapped for the same reasons. The protests of manufacturers who stay within the law are of little avail. It is frequently difficult to place a finger on these crooked operators who are here today and gone tomorrow. However, it should be much easier to investigate the manufacturers who are supplying them. And an-

nounce publicly who these manufacturers are. This problem is a serious one for the honest manufacturer and distributor, and one which we believe the Disinfectant Committee of the National Association should look into at the earliest possible moment with a view of helping to run these crooks out of the business.

BY an anonymous chemist, we are reminded that we consistently and repeatedly misspell the word "bedbug". According to the dictionary, our correspondent tells us, the word is "bedbug", and not "bed bug" as we have been in the habit of writing it. And, he further remarks, various and sundry labels do this same creature the gross injustice of also misspelling his name in this manner.

THE insecticide industry of the United States,—especially those men associated with it who lend their time to scientific pursuits,—has been quite signally honored during the past two months by visits to this country of two of the leading scientific workers of Europe in pyrethrum, derris, and other insecticides. We refer to the visits of Tattersfield, who recently returned to England, and to Ruzicka, who is still in this country lecturing at the University of Chicago. To these two men, the scientific world of insecticides owes much. In this issue, we have the pleasure of publishing the address of Dr. Tattersfield at the recent Chicago meeting of the National Association of Insecticide and Disinfectant Manufacturers. We sincerely hope that these will be but the first of regular visits which these eminent gentlemen will make to the United States.

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Notes of the Trade

H. Clay Glover Co., New York, disinfectants and medicated soaps, has moved recently from 119 Fifth Ave. to 468 4th Ave.

Dr. James M. Church of the Monsanto Chemical Co., St. Louis, is the author of an article in the July issue of *Monsanto Current Events* on "Preventive Medicine Relies Heavily on Chemicals in War on Disease". It outlines the history of preventive medicine and modern surgery and their association with disinfectants and antiseptics.

Lehn & Fink, Inc., Bloomfield, N. J., has appointed Kenyon & Eckhardt, Inc., New York agency, to direct advertising of "Hinds Honey & Almond Cream." This is in addition to the advertising of Dorothy Gray cosmetics which this agency has handled for several years.

Dri Brite, Inc., St. Louis, has appointed Ruthrauff & Ryan, Inc., to handle the advertising of its self-polishing wax. Magazines, newspapers and radio will be used.

Newspapers in a number of cities will be used in a campaign which will be conducted by Minwax Company, New York, floor and wall finishes. The concern has placed its advertising account with W. I. Tracy, Inc.

Stephen Clark Rowson, advertising manager of Tanglefoot Company, Grand Rapids, from 1898 until he retired several years ago, died recently aged eighty-one.

Alvin G. Brush has been named chairman of the board of directors of American Home Products Corp., Detroit. Mr. Brush has recently been president of Affiliated Products, Inc., New York and Chicago, and was formerly a member of the auditing firm of Smith, Brush & Davis.

Monsanto Chemical Co. has leased offices in the RCA Building, Rockefeller Center, New York, and moved to the new location on July 5. The district sales offices of two subsidiary companies, Swann Chemical Co. and Merrimac Chemical Co., will also be located in the future at the new address. Other prominent chemical companies now located in "Radio City" include American Cyanamid, Dow Chemical, and Columbia Alkali.

Hartford Exterminating Co., Brooklyn, has taken new quarters at 629 Wilson Ave.

National Mop & Mfg. Co., Cumberland, Md., has taken out a state charter to deal in chemical preparations.

The Present Status of Pyrethrum and Derris Investigation

By Dr. F. TATTERSFIELD, F. I. C.*

Rothamsted Experiment Station, Harpenden, England

AT a busy convention such as this, it would I think probably weary you for me to give a full exposition of what I consider to be the present status of pyrethrum and derris investigations. Although the amount of pyrethrum used in America is much larger than with us, and although the quantity of derris exported to America is about of the same volume as to Great Britain and may soon surpass it, the investigation of these two potent insecticides is a matter of considerable importance in Great Britain. Though the incidence of pests in America is greater and has forced itself upon your urgent consideration, it is also true in Great Britain that a serious toll is taken of both health and wealth by their depredations. A British point of view may therefore prove of some interest.

Pyrethrum: As far as pyrethrum is concerned the classical researches of Staudinger and Ruzicka (1) have led to a great clarification of view and although there may still exist considerable discrepancies in the findings of various workers, the subject is no longer wrapped in mystery. Any errors made are not complete perversions of the truth. In fact, a true body of knowledge is being incorporated through the labors and world-wide discussion of many workers.

The discrepancies appear to me to arise from several factors. We are dealing with a botanical material subject to genetical variation, which contains two active principles embedded in a complex of organic material, and it is not easy to assess their interactions. The experimental problems and conditions of different research workers may differ widely and particular aspects may be imperfectly explained by the writer or understood by the reader, and one worker may be dealing with botanically pure and another with botanically impure material. Nevertheless, considerable advances have been made in recent years and acrimonious dispute is less likely to lead us to final truth than friendly discussion. We need the best thought of many minds. Let us take some of the points *seriatim*.

The Estimation of the Active Principles. I take it that this aspect is still one of difficulty, but let us admit that the means of evaluation, dating from the pioneer research of Staudinger and Harder (2) are an advance upon the rule-of-thumb methods employed before. Personally, knowing the difficulties of sampling and of analyzing botanical material, I consider that the chemical analysis of Pyrethrum may always be susceptible to a moderately large margin of error. The prime requisite of such methods is that their degree of accuracy should not be of a lower order than that of biological insecticide trials.

The degree of correlation that exists between the insecticidal performance as given by the biological trials and the chemical estimation is the true criterion of the validity of a chemical means of evaluation. At present, methods exist for which it is claimed that they determine (1) pyrethrin I and II separately and (2), the total pyrethrins. Now apart altogether from the ease and accuracy with which these methods are carried out, the crux of the problem of deciding to which of these two categories we should attach our faith, is the relative activity of the two active principles. If they are of the same order of toxicity then the determination of the total pyrethrins is more important than the estimation of either but if one

is much more toxic than the other then that conclusion would no longer hold. That I think is self-evident. It cannot be said that any of the published work has so far finally decided this matter. The isolation of the components of the active principles and their resynthesis, the partial separation of the active principles by chemical or physical means, unless there is a complete assurance that one's final product is unchanged pyrethrin I or II are not finally decisive, although they may give very valuable pointers in the right direction. At one time, we considered that perhaps the matter could be decided if there were a preferential loss of activity of the two pyrethrins and their loss could be determined accurately by chemical means, but much further work will be requisite before this mode of procedure can be relied upon to give an answer to the question.

Whether or not an answer can be given by a series of genetical studies in which by hybridization and cross-pollination one active principle can be reduced to a low level in the flower, time only can tell. At the present time this is the method that we are hoping to use. Such cross-pollination experiments have been carried out by Mr. Fryer and Mr. Gimingham at the Plant Pathology Laboratory of the Department of Agriculture in England and it remains to be seen, whether among the many plants raised, some suitable for the purpose can be found. It is obvious, however, that such a method will take a considerable time. Important, too, in this connection is the differential response shown by different insects to the toxic effect of the two pyrethrins.

If it is found that some insects have an equal susceptibility to pyrethrin I and II and others are more susceptible to I than to II, then the two will have to be determined, and your instructions for the use of your preparations may become seriously complicated. Dr. Ripert (3) has recently advanced the view that the amounts of pyrethrins I and II present in the flower are substantially the same. Our experience of Ripert's method is very limited but in six samples of Kenya Pyrethrum upon which we have employed it there was only one exception to this rule. It seems to me that this matter should have the fullest investigation, for if substantiated it may be a matter of indifference whether the total pyrethrins or only pyrethrin I is estimated.

As far as our experiments have gone we have found a correlation between the estimation of pyrethrin I and insecticidal activity. The Gnadinger & Corl(4) method and our own modification of the acid method(5) have given results of the same order and although it is just possible there may have been some compensation of error, I do think it indicates that the two methods are not giving entirely deceptive results. Dr. Gnadinger's contribution to our knowledge of pyrethrum is important. Dr. Seil's method(6) has given in our hands substantially the same results as our own. We were working on very similar lines when it was published and it is unquestionably a considerable improvement. It is more expeditious and more fool-proof.

With Dr. Ripert's modification(7) of the acid method we have not had sufficient experience to judge of its merits. Dr. Martin, my colleague at Rothamsted, has been carrying out a number of replicated analyses on rich samples of Kenya Pyrethrum by the three forms of the acid method, and he finds that the Ripert method gives higher results for Pyrethrin II than the Seil method and our

* Address before the 21st annual meeting, Natl. Assn. Insecticide & Disinfectant Mfrs., Chicago, June, 1935.

own. The weight of 40 gm. which Ripert suggests for his method is, unfortunately, too great an amount for us to use on much of our experimental material, but so far, we have only found minute quantities of free volatile and water-soluble acid, upon which he lays so much stress, in the botanically pure flowers upon which our tests were carried out.

Two important points have emerged upon which there is a general measure of agreement.

1. That the ovaries or achenes are the seat of the major portion of the active principles.

2. That the active principles increase in amount with the growth and development of the flower and are at a maximum when it is fully opened. The latter is a matter of great economic importance as the taking of the crop at an earlier stage leads to loss to the grower from a deficiency in pyrethrin content and in the weight of the crop. At Rothamsted our concern is much more with the growing crop than the manufactured article, with production than use, and some of our inquiries may only be of casual interest to you. But, as you have to secure your supplies, perhaps, you will allow me to outline briefly some of our findings.

Selection of Hybridization Experiment. Plant breeding experiments on the flowers of the Natural Order Compositae to which *Pyrethrum* belongs are exceedingly difficult. Nevertheless the possibility of increasing the pyrethrin content of the flowers by such means is being subjected to a preliminary investigation by Messrs. Fryer and Gimmingham in England. It is not likely to prove an easy task. Some unimportant factors such as length of petal and earliness or lateness of flowering do seem to be genetical in character, and although under our experimental conditions, plants giving flowers with a high or low pyrethrin content continue to do so in subsequent years, and this property is handed on to daughter plants, raised by the division of the parent, we have no definite proof yet that by plant-breeding the pyrethrin content can be materially raised.

Attempts to improve the plant from the point of view of the stoutness and uprightness of the stalk are also being made in England, where the possibility of the flowers being laid by wind and rain is of importance if any form of mechanical harvesting is to be carried out.

Response to Environmental Conditions. Our experience has been that the manurial requirements of *Pyrethrum* are not great, that the plant stands up to drought conditions relatively well. Nevertheless the importance of the water-holding capacity of the soil to the production of flowers seems to me to be well worth enquiry. *Pyrethrum* is essentially a plant adapted to temperate climatic conditions, it grows and flowers well in England. The plant fails, however, to produce flowers in the lowlands of tropical countries such as Uganda and Trinidad. Our experiments indicate that a dormant or semi-dormant period is requisite if flowering is to take place. In Kenya, above a certain altitude, *pyrethrum* blooms for some 9 or 10 months of the year, in England the harvest is taken usually within ten days in early July. It is an important crop in Kenya as its foliage is not eaten by the locust, and paraffin extracts of the flowers are found to control two of the worst pests of the coffee plant. It was considered at one time that the whole crop would be used locally but production has greatly increased, and it is probable that Kenya colony may become an important exporter. The growers there seem to me to have three great advantages (1) they have started with good seed (2) they have cheap labour (3) they crop for nine or ten months of the year.

So far the flowers sent to London have been of excellent quality, a series of six recent samples have been analyzed by my colleague, Dr. J. T. Martin by Ripert's, Seil's, and our own method, and although Ripert's method gives definitely higher results for pyrethrin II, there is substantial agreement in the pyrethrin I values which range from 0.54-0.70 per cent, the total pyrethrins ranging from 1.1 to about 1.4 per cent.

On making enquiries, I find that the greatest confidence is felt that the quality will be maintained. At the moment, shipments represent the produce of probably 100 growers, but the industry is being organized on a scientific and business footing. Grading is in its infancy as yet, but the worst deliveries are kept back for local consumption, and are not allowed to come into the open market, and it is hoped that by bulking, a product of great uniformity may be produced. The production as yet may be a small thing compared with the amounts you consume here in America, and at present it is being completely absorbed in the English and European markets, but the amounts available should increase, as the area under cultivation expands, and comes into bearing.

Derris Root and the Fish-poison Plants: The outlook before the insecticides of this class appears to be a hopeful one. It is, perhaps, a curious fact that chemical compounds of so closely a related type which are the active principles of several different genera of plants should have been used as fish-poisons by the aborigines of widely separated tropical countries. It is, I think, no less curious that a plant like *derris*, employed as an insecticide as far back as 1847, should have been so long in coming into its own. Today, one can hardly keep pace with the literature published about this class of insecticides and our knowledge of them has increased beyond the hopes of anyone interested in the subject ten years ago. I ought not to let this occasion pass without paying my small tribute to the splendid work carried out at Washington upon the constitution of the active principles of these plants. The group of scientists working with Doctors Roark and Campbell have put the world in their debt.

There are many problems still claiming the attention of investigators, one of the most urgent, perhaps, is the degree of usefulness of these plants. A body of knowledge is slowly, but I think definitely, taking shape upon this phase, which concerns the economic entomologist rather than the chemist and it is better to leave the entomologist to speak for himself. The economic botanist is also making his valuable contribution. Let me illustrate. When samples of *derris* root first came into my hands, they were almost universally known as *Tuba* Root. I can speak feelingly about the nuisance of many of these native names. The word "*tuba*" simply means poison in the East and there are many plants known to the natives of Malaya as *Tuba*, which have no insecticidal properties at all. The word "*barbasco*" which seems to have been derived from *verbasum*, species of which were used centuries ago in Europe as fish poisons, and are still used, is another instance. These native names can prove a darkening of counsel, and I consider that the work of Henderson(8) in setting out the diagnostic characters of leaf form, and habit of growth of the many varieties of *derris* root may, if followed up, have considerable economic value.

Of all the urgent problems confronting us, however, the question of the means of chemically evaluating these plants is the most important. It may be urged that biological evaluation methods are at our disposal, but knowing as I do the difficulties that confront one who embarks on a critical series of insecticide tests, I should seriously regard it as a misfortune if they were the only means at our disposal of evaluating these plants.

A chemical means is urgently needed for several reasons:

- 1.—To enable the planter to grow the best species and varieties, for they differ widely in their insecticidal properties. In addition, the potency of plants such as *Derris* may well depend upon obscure factors of climate, and soil, and it is necessary to know the optimum time of harvesting.

- 2.—To form a satisfactory basis for sale.

- 3.—For the standardization of the manufactured article.

It seems to me that the question is one of great complexity for rotenone-bearing plants belong to many genera and any method of evaluation must cover at least both *Derris* and *Lonchocarpus* species. As far as *derris* is concerned, the main species under cultivation are *Derris* (Turn to Page 113)

The Insecticide Act of 1910

Activities of the Food and Drug Administration During Twenty-five Years of Enforcement

By DR. C. C. McDONNELL*

Insecticide Division, Food and Drug Administration

WHILE the Insecticide Act was passed by Congress 25 years ago and has been in force since January 1, 1911, many of your members representing the younger generation have been in the Association only a short time and it was thought that a brief statement of the activities of the Food and Drug Administration in enforcing this Act might be of interest. Of the regulatory laws that have been passed by Congress at various times, this Act stands out as unique in that it had the endorsement of the leading manufacturers of insecticides and fungicides in the United States. In fact its passage was expedited through contributions of manufacturers to the expenses of the committee of the Association of Economic Entomologists that had charge of the preparation of the bill.

There has been no act of Congress that comes nearer to affecting the welfare of every individual of the nation. All food-producing crops, all animals (including man), the food we eat, the clothes we wear and the homes we live in are all subject to attack or infestation by destructive insects, fungous diseases or bacterial infection. The fight against these pests becomes more and more urgent as the population increases and better sanitation and a larger food supply becomes necessary. It is the general opinion that in our fight against insects we are pitted against creatures of the lowest intelligence. As a matter of fact, there is no form of animal life that possesses greater ingenuity and ability in its self-preservation.

At the time of the passage of the act the insecticide industry was in a very unsatisfactory condition. Most manufacturers knew little regarding methods of control of insect pests and plant diseases and much of the material on the market was ineffective for the purposes for which it was recommended and much of it was improperly manufactured and unsafe for use on vegetation. The passage of this law marked the beginning of a great change in the insecticide industry. It has had a phenomenal growth and there is little resemblance between the representations made on the labels of insecticides, fungicides and disinfectants then and the claims on the labels of these products today.

For the enforcement of the Insecticide Act the appropriation by Congress in recent years has ranged from \$200,000 to \$225,000 annually and the Food and Drug Administration designated as the enforcing agency. The scientific force connected with the enforcement of this act is, in general, engaged exclusively on products coming under this act and totals 32 individuals. They include chemists, bacteriologists, microanalysts, entomologists, plant pathologists and veterinarians. The inspection work is carried on by the same force of inspectors as are engaged in Food and Drug inspection work, of which there are 77.

This force of scientists and inspectors is too small to attempt to cover the entire field of products subject to the law and we therefore operate under a project system, taking up certain types of products each year and as these are covered they are dropped for a time and new ones added. Of course if it comes to our attention that flagrant violation exists outside of our project operations, appropriate action is taken to correct it.

At the present time our scope of operations include all of the important agricultural insecticides and fungicides, such as lead and calcium arsenates, Paris greens,

Bordeaux mixtures, lime sulphur solutions, combined insecticidal and fungicidal dusts, and oil emulsions; materials for the treatment of seed grains for rust and smut control; insecticides for use on animals for the control of mange, flies, lice, fleas, chicken mites, etc.; insecticides for household use against flies, roaches, ants, clothes-moths, etc.; animal dips and disinfectants permitted under the regulations of the Bureau of Animal Industry for the dipping of livestock, and for the disinfection of railway cars and infected premises; disinfectants—including liquor cresolis compositus, coal tar creosote disinfectants, pine oil disinfectants, formaldehyde preparations, hypochlorites, etc.; and some other less important types of products. You can see therefore that it covers a wide range of products.

The chemical work is performed at our laboratory in Washington and at the various laboratories of the Administration located in different cities throughout the country. The principal entomological testing station is at the Agricultural farm at Beltsville, Md., where facilities are available for testing the various types of orchard insecticides, insecticides for garden and greenhouse use, insecticides for use in the household and on poultry and small animals. For the testing of products recommended for use against insects which are not available in this section—such as the cotton boll weevil, Japanese beetle, some of the scale insects and certain others—an entomologist is sent to the locality where the infestation occurs. For the field testing of fungicides we have a station at Haddon Heights, N. J., which is in an extensive fruit and truck section; another station is maintained during the growing season at Sodas, N. Y., which is in one of the principal fruit growing sections of the East; and, owing to the fact that climate and other conditions are different in certain sections of the country and control methods differ, we maintain a station for the testing of fungicides at Corvallis, Oregon. Insecticides for use on animals are tested for us by scientists of the Bureau of Animal Industry.

We collect and examine during the year from 1500 to 2000 samples. In addition to this much time is devoted to correspondence with manufacturers in criticizing labels voluntarily submitted by them. Last year about 400 such labels were given consideration.

During the present fiscal year, beginning July 1, 1934, samples from something over 1200 shipments have been collected and reported. Slightly under 30% of these showed violation of the law in varying degrees of seriousness from minor infractions to flagrant violations. Twenty-two seizures were recommended and 335 citations issued.

Manufacturers are, in general, cooperative and appear to desire to put out products in compliance with the law. The insecticide manufacturer occupies a responsible position. It is not only important that the product he puts out be effective against the insect for which it is recommended, but in the case of plant insecticides even more necessary that it be non-injurious to plants on which it is to be used, or if for use on animals that it be non-injurious to such animals.

Some manufacturers fail to realize the importance of having their products thoroughly tested by competent scientists before placing them on the market. Too many products are put out bearing claims that are not based on any actual work to determine whether or not they are true.

Not so very long ago a manufacturer was in my office discussing the label for his product and I asked him on what basis he made certain claims which the label bore.

* Address before 21st annual mid-year meeting, National Assn. of Insecticide & Disinfectant Mfrs., Chicago, June, 1935.

He said that he bought up samples of products on the market of similar composition and copied the claims on the labels of these products. This showed good faith in the honesty of his competitors but it is not a safe principle to go on in all cases. It reminds me of the story of the old negro preacher who was preaching to his congregation on the text "Knowledge and Faith." He said in illustrating his point—"You see brother Johnson and his wife with their six children sitting on the front pew. Mrs. Johnson knows dat dem six children is hers,—dat is knowledge,—Brother Johnson thinks dey am his,—dat is faith." So in preparing your labels the claims should be based on knowledge rather than on faith.

Law enforcement work is interesting in many ways—new problems are always arising that hold one's attention, but in general it is a thankless job. We try to be human and reasonable but are at times subjected to criticism. One manufacturer not long ago wrote to a number of congressmen and senators, to the Secretary of Agriculture, to the attorney general and to the President of the United States bitterly complaining of the treatment he had received at our hands. Others are less severe, such as the following, which injects a little sarcasm, "Enclosed is our label with corrections noted thereon. Please advise if these corrections are satisfactory, and also tell us just how long they will be alright, as we desire to order labels accordingly."

Occasionally we receive letters that cause us to feel that our efforts are not entirely in vain. Quoting from a recent letter from a manufacturer in Iowa "We appreciate thoroughly the spirit you have shown and feel that such methods are constructive in character and cannot help but build up good will and merit full cooperation from trade and industry."

Another from a manufacturer in one of the Eastern States in reply to a letter from us criticizing the label of his product, "We wish to advise you that this letter is one of the most constructive letters that we have ever received from the Department of Agriculture * * * We want to acknowledge our appreciation of the general tone of this correspondence and to tell you that our company is only too glad to cooperate with the Department and appreciate these suggestions which are made."

Some of your charter members of this Association no doubt recall that this Association, which is now 21 years old, was started by a number of manufacturers for the purpose of combatting what they considered an autocratic attitude on the part of the authorities in Washington in the enforcement of the Insecticide Act. This feeling was due very largely to a misunderstanding by manufacturers of the terms of the law and the limitations imposed by it on the enforcing officials. After a better understanding of these requirements and limitations, brought about largely through the efforts and guidance of Mr. Kage, the Association's Counsel at that time, this feeling was soon overcome, as indicated by the statement of the late Mr. Hemingway in his presidential address at your 4th annual convention in 1917, who stated "The Association has been so successful in smoothing out difficulties between the manufacturers and government authorities that that phase of its activities has ceased to be a matter of prime importance and the Association is now in a position to consider an extension of its activities."

We of the enforcing officials in Washington have realized the beneficial influence your association has had over the insecticide and disinfectant industries and its power for good in these fields. I trust that its work and activities may continue along the same high plane.

Southwest Chemical Corp., Little Rock, Ark., manufacturers of sanitary specialties, have added three new items to their line, according to B. D. Johnson, secretary and treasurer of the firm. The new items are a roach powder, a mill and warehouse spray, and a new type moth spray.

INSECTICIDE-DISINFECTANT REGISTRATION

The official registration list for the 21st annual mid-year meeting of the National Association of Insecticide & Disinfectant Manufacturers, held at the Edgewater Beach Hotel, Chicago, on June 10 and 11, follows:

O. M. Poole, Derris, Inc.
R. Witherspoon, Derris, Inc.
Dr. R. C. Roark, U. S. Dept. Agriculture
Dr. Alfred Weed, John Powell & Co.
John Powell, John Powell & Co.
D. W. Lynch, John Powell & Co.
Harry J. Ahles, John Powell & Co.
W. J. Zick, Stanco, Inc.
H. R. King, R. J. Prentiss & Co.
A. W. Bevernick, R. J. Prentiss & Co.
L. A. Trevisan, American Can Co.
L. J. Freundt, American Can Co.
Dr. H. H. Shepard, University of Minnesota
B. G. Philbrick, Skinner & Sherman
C. P. McCormick, McCormick & Co.
J. N. Curlett, McCormick & Co.
A. E. Badertscher, McCormick & Co.
L. E. Mills, Dow Chemical Co.
Don Sanford, Dow Chemical Co.
Wm. F. Kroneman, Sherwood Petroleum Co.
R. T. Kennedy, Sherwood Petroleum Co.
P. E. Falkingham, McLaughlin Gormley King Co.
C. B. Gnadinger, McLaughlin Gormley King Co.
G. A. McLaughlin, McLaughlin Gormley King Co.
J. L. Brenn, Huntington Laboratories
Melvin Fuld, Fuld Bros., Inc.
J. Fuld, Fuld Bros., Inc.
Gerald F. Pauley, Monsanto Chemical Co.
R. E. Sturhahn, Monsanto Chemical Co.
Dr. J. M. Church, Monsanto Chemical Co.
Geo. L. Hockenjos, Monsanto Chemical Co.
M. V. Pennal, Monsanto Chemical Co.
T. C. Jesdale, Monsanto Chemical Co.
William F. Pollnow, Vestal Chemical Co.
J. H. Carpenter, Koppers Products Co.
W. B. Eddy, Rochester Germicide Co.
W. G. Griesemer, The Black Flag Co.
Wm. J. Wagner, Tanglefoot Co.
O. D. Mosher, Tanglefoot Co.
B. E. Kuyers, Tanglefoot Co.
Dr. C. C. McDonnell, U. S. Dept. of Agriculture
S. H. Bell, S. H. Bell Co.
E. E. Martin, J. J. Holcomb Mfg. Co.
Dr. Robert C. White, Robert C. White Co.
H. W. Baldwin, Baldwin Laboratories
Dr. C. M. Gwin, Baldwin Laboratories
E. C. Jacobson, Baldwin Laboratories
C. L. Weirich, C. B. Dolge Co.
J. E. Armstrong, Rex Research Corp.
E. H. Rude, Rex Research Corp.
Dr. O. F. Heddenberg, Rex Research Corp.
H. W. Moburg, Rex Research Corp.
F. W. Wolff, E. I. duPont de Nemours Co.
L. S. Weller, E. I. duPont de Nemours Co.
B. H. Little, Hercules Powder Co.
F. M. Thompson, Jr., Hercules Powder Co.
G. F. Hogg, Hercules Powder Co.
R. P. Neptun, Allaire, Woodward & Co.
D. F. Murphy, Rohm & Haas Co.
S. C. Kelton, Rohm & Haas Co.
Wallace Thomas, Gulf Refining Co.
H. M. Clark, Dr. Hess & Clark, Inc.
Dr. Emil Klarmann, Lehn & Fink, Inc.
James Varley, Baird & McGuire, Inc.
Jack Varley, Baird & McGuire, Inc.
C. C. Baird, Baird & McGuire, Inc.
Dr. G. F. Reddish, Lambert Pharmacal Co.
R. O. Cowin, Standard Oil Co., Ohio

(Turn to Page 117)

A Resume of Insecticides

Report of the Committee on Literature and Patents*

By OTIS M. POOLE, Chairman
Derris, Incorporated

THIS report consists of a resume of published articles and patents that have come to the attention of this Committee. With regard to patents, this is only a selective report, complete lists being available in Dr. Roark's "Review of U. S. Patents Relating to Pest Control," issued monthly by the Department of Agriculture. Your Chairman wishes to express his thanks to Dr. Roark for kind assistance given to this Committee in assembling the review of recent literature.

The material that has come to our notice falls naturally under three headings: "Synthetics and General," "Pyrethrum," and "Derris and Cube." A list of references is given at the end of this report.

Literature

Synthetics and General

Wilcoxon and Hartzell (8) report tests on five organic thiocyanates as insecticides used against aphids, mealybugs, bark beetles, flea beetles and red spiders. Trimethylene dithiocyanate was found to be definitely superior to other four and to p-thiocyanopropyl ether previously reported upon.

Roark (7) presents a generalized discussion of the advantages and recommendations of organic insecticides, and the author concludes that the probability of finding new and better insecticides is greater in the organic field than it is among the purely inorganic chemicals.

Bosquet, Dietz, and Salzberg (1) report the results of investigations on certain alkyl thiocyanates as contact insecticides. Lauryl thiocyanate was found to be the best.

Neiswander (5) reports the results of fairly extensive greenhouse tests on two species of mealybugs, *Phenacoccus gossypii* and *Pseudococcus citri*, using Lethane 420, an alipatic thiocyanate. Very high kills of both insects and eggs were obtained.

Richardson (6) gives the results of tests with various contact sprays including two thiocyanates on the Mexican mealybug attacking greenhouse chrysanthemums. Kerosene emulsion was found to have considerable promise.

Cory and Langford (4) discuss a number of sulfated alcohols as wetting and spreading agents in insecticidal solutions. It also considers the alcohols as insecticides in their own rights. Sodium lauryl sulfate seems to be the best of those considered.

Breakey and Miller (2) give the results of ovicidal tests, conducted according to a method developed by the authors, with Hallowax, a chlorinated naphthalene product, and a number of other commonly used contact insecticides. It is shown that Hallowax is a good ovicide.

The Bureau of Entomology and Plant Quarantine, U. S. D. A., (3), makes recommendations for the control of insects infesting certain vegetables, small fruits, and tobacco, and the elimination of harmful insecticidal residues. This bulletin covers the conclusions reached through the investigational work of the Bureau of Entomology up to and including the season of 1934. The application of non-poisonous insecticides culturally and horticulturally is of interest.

Pyrethrum

Ginsburg, Schmitt, and Granett (13) describe experiments with a horticultural liquid consisting of ½ lb. of pyrethrum extract incorporated into 1 gallon of a highly refined hydrocarbon distillate of low boiling range. The liquid was applied in a fine form to a great number of garden and greenhouse plants, and gave 80 to 100% kill on aphids, thrips, red spider, mealybugs, white fly, scale,

and tent caterpillars, without noticeable injury to the plants.

Baber (11) gives the results of tests conducted in the Union of South Africa in naphthalene, pyrethrum, oil of citronella, etc., as sprays for mosquitoes. Baber reports high recovery in 3 to 12 hours on many of the proprietary preparations, and he suggests the developments of a standard method of testing.

Le Pilley (17) obtained good control of *Antestia Orbitalis* on coffee in East Africa by spraying 3 to 6 gallons of a 1 to 1.5 lb. pyrethrum-kerosene extract per acre of trees.

Ripert (20) has introduced a method of analysis for pyrethrins which is based on the fact that the barium salts of pyrethric acids are soluble in water. The method is applicable to all products containing pyrethrum, and is considered by the author an improvement over the Gnadinger method. It permits determination of pyrethrin I and pyrethrin II, which were found to be equal in amount in the flower.

Profft and Korting (18) have examined a number of Dalmatian pyrethrum preparations for pyrethrin content by the method of Gnadinger and Corl. Only a very general relationship was found between the pyrethrin content of a preparation and the insecticidal value.

Kemper (16) has described 3 new methods for the biological evaluation of pyrethrum preparations. One method employs mosquitoes and biting and sucking flies, one uses insects and small invertebrates which live on the ground and the third employs the stickleback fish.

Haegle (14) reports that a spray of 1 quart of pyrethrum extract containing 4.32 g. of pyrethrins per 100 cc., 6 gals. of kerosene and 4 lbs. of neutral soap diluted to 100 gals. gave a 93 per cent control of the prune worm (*Mineola scitulella*).

Goeswald (12) states that the toxic reactions shown by forest insects treated with pyrethrum dust were typical of a nerve-muscle poison.

An anonymous writer (9) states that a pyrethrum spray, the equivalent of 8-10 oz. of pyrethrum per gallon, in a light water-white deodorized petroleum, containing no perfume or less than ¼ per cent of a light odor, seems to meet the requirements for a bed bug exterminator. There may be possibilities in derris or cube root extractives but their incorporation in a petroleum solvent presents complications.

Headlee (15) reports that sprays of white oil impregnated with pyrethrum extract and emulsified with powdered skim milk, applied at 10 day intervals when codling moth larvae were trying to enter the apple, gave as high a degree of protection as did lead arsenate. Unless used at high dilutions and with much care, the sprays produced a cumulative deleterious effect on the trees.

Ries (19) states that all pyrethrum compounds used gave excellent results against the active forms of *Neotetranychus buxi*, n. s. garman, but very little control was obtained of the eggs or quiescent forms.

Searls and Snyder (21) report that 2 per cent of an oil extract of pyrethrum adjusted to 2.1 per cent pyrethrins gave efficient control of body lice (*Polyplax spinulosa* Burm.) on rats, without injury to the rats, when applied by atomization. Immersion in the 2 per cent dilution destroyed the lice but also tended to injure the rats. Five per cent spray controlled bedbugs (*Cimex lectularius* Linne) in occupied cages without injury to the rats.

Steiner (22) states that Pyagrol (pyrethrum extract in Penetrol) may give a good immediate kill of the white

* Before the 21st annual mid-year meeting, National Assn. Insecticide & Disinfectant Mfrs., Chicago, June, 1935.



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apple leafhopper (*Typhlocyba pomaria* McAtee) but has little effect on nymphs hatching some hours after treatment.

Derris and Cube

Tischler (40) summarizes various investigations on the physiological mode of toxicity of derris, and concludes that the toxic effect of derris is general rather than specific to any organ or system.

Jones, Campbell and Sullivan (33) report results of toxicity to house flies of extracts of 6 samples of derris root, 5 samples of cube root, 1 sample of haiari stem and 1 sample of *Cracca virginiana* root with the rotenone content determined by certain chemical determinations. The rotenone present in the samples was too little to account for all the toxicity. In more than half the samples the figures by the Gross-Smith test, considered to represent the sum of rotenone and deguelin, agreed with the toxicity value, but in other samples they were lower. Total extractive values were higher than toxicity, and values based on methoxyl content of the extract were closer but also too high. The methoxyl figures minus an approximate value for toxicarol agreed more closely with the toxicity figures in general than did the other determinations. It is impossible, on the basis of these results, to recommend unreservedly any one of these chemical determinations as a measure of the insecticidal effectiveness of rotenone-bearing plants.

Cahn and Boam (26) report that from derris resin, obtained by extraction of derris root with organic solvents, only two constituents were isolated. These were rotenone and a dimorphic substance melting at 189 and 192-194° C., of the probable formula $C_{28}H_{42}O_8$, possessing insecticidal properties. The value of a derris root or resin cannot be assessed by its rotenone content alone.

Cahn and Boam (27) give particulars of a study of rotenone determination. Derris resin, which has been extracted from derris root with trichloroethylene and recovered by evaporation, is dissolved in 2 parts of warm carbon tetrachloride which has been saturated with rotenone in the cold, cooled, seeded if necessary, and kept overnight. The separated crystals are filtered, washed with saturated carbon tetrachloride, dried and weighed. The weight of the complex times 0.72 gives the weight of the rotenone. To detect "hidden" rotenone in a poor resin, 1 g. of rotenone and 4 g. of the resin are dissolved in 10 cc. of the saturated carbon tetrachloride. The solution is kept overnight and then treated as in a normal determination.

Neiswander (35) reports that a spray of 1 per cent rotenone 1:200 and Penetrol 1:200 killed 31 per cent of *Phenacoccus gossypii* T. & Ck11. A commercial rotenone-pyrethrum product containing 0.75 per cent rotenone and 1.8 per cent pyrethrins gave a reduction of 74 per cent in *Pseudococcus citri* Risso when diluted 1:200.

Richardson (37) states that derris and pyrethrum dusts were ineffective for control of the Mexican mealybug (*Phenacoccus gossypii* T. & Ck11.) on greenhouse chrysanthemums. Sprays of pyrethrum and derris were more effective than soap or nicotine but less effective than organic thiocyanates and 10 per cent kerosene emulsion.

Hutson (32) reports that the controls of the strawberry leaf roller (*Anyclus comptana*) by the use of derris and pyrethrum insecticides exceed those secured through the use of other materials.

List and Sweetman (34) discuss the application of "Student's" method of paired comparisons to data obtained on the value of some non-arsenical insecticides, including powdered derris, cube and pyrethrum, for the control of cabbage worms.

Howard, Brannon and Mason (31) state that finely ground derris root in water appears to be one of the best insecticides ever tested for the control of the Mexican bean beetle (*Epilachna corrupta* Muls.). The water suspensions of the ground root are superior to extracts of either derris or pyrethrum or a combination of the two. Ground derris root with a carrier used as dust has also given very promising results. Pyrethrum used as a dust with equal parts of tobacco dust was not so good as

derris dusts containing 0.5 to 0.75 per cent rotenone. Pyrethrum extracts kill all insects touched but residual effects are lacking.

Burdette (25) found that derris and talc (25:75) and derris, sulphur, clay (20:25:55) and pyrethrum extract, derris and carrier used against the squash vine borer (*Melittia satyriniformis* Hbn.) gave an increase, over a check plot, of plants not infested 83.5, 71.3 and 37.4 per cent respectively.

Glasgow (30) reports that three applications of a spray containing 2 pounds of derris powder with a 4 per cent rotenone content to 100 gallons, applied during the fruit fly period, reduced the cherry fruit fly infestation in a large orchard from about 30 per cent in 1933 to less than 1 per cent in 1934.

Roark (38) states that "Cube" is a word used by the natives of Peru to designate any plant having fish-poisoning properties, but that the species regarded as most powerful and the one most commonly cultivated is *Lonchocarpus nicou* (Aubl.) DC.

Richardson (36) found that solutions of derris extract and of hellebore powder in molasses leave toxic and fairly stable deposits when used in the control of gladiolus thrips.

Ginsburg (29) compares the toxicity of various extracts of derris root. Water does not extract all the toxic matter. Alcohol and water extracts lose toxicity slowly on standing. Derris extracts are more toxic to insects than solutions of pure rotenone. Toxicity to different insects varies greatly. Residues from derris root extracted previously with acetone possess little or no toxicity to aphids but are toxic and repellent to caterpillars. The residue from derris extracted first with acetone and then with water does not possess direct toxicity to caterpillars but acts as a deterrent.

Badertscher and Wotherspoon (24) exposed treated and untreated pyrethrum and derris powders to sunlight and air and to the light of a mercury vapor lamp for various periods. The toxicity of the pyrethrum powders were tested against 4th instar larvae of *Culex quinquefasciatus*, *Aphis rumicis*, and against larvae of *Plutella maculipennis* on cabbage in the field. The derris powders were tested against *Aphis rumicis*, larvae of *Malacosoma americana* and larvae of *Plutella maculipennis* on cabbage. The following conclusions were reached: Pyrethrum powder loses most of its toxicity when exposed to the action of sunlight and air in the summer within a few days, the loss being much slower in the absence of direct sunlight. Treated pyrethrum powder after exposure to light and air shows an efficiency from 30 to 65 per cent greater than untreated pyrethrum similarly exposed. Derris powder requires twice as long as pyrethrum to lose most of its toxicity when exposed to air and sunlight and loses it much more slowly than pyrethrum when exposed to air in the absence of direct light. Treated derris powder after exposure to light and air shows an efficiency from 34-90 per cent greater than untreated derris powder similarly exposed.

Roark (38) has reviewed the recent advances in the knowledge of derris and cube, giving data on active principles, chemistry, statistics, wider application, new sources, and patents. This paper was read at our December meeting.

Patents

Synthetics and General

1,986,218 (Jan. 1, 1935; appl. June 16, 1931). Insecticide and Fungicide. Theron P. Remy, Los Angeles, Calif.—The Texas Company, New York, N. Y. An insecticide and fungicide in the form of a substantially dry dust consists of finely divided dehydrated fuller's earth impregnated with readily vaporizable organic disulfides recoverable from petroleum and the products of refining the same.

1,987,005 (Jan. 8, 1935; appl. May 26, 1931). Insecticide and/or Fungicide. William A. Forbes, San Francisco, Calif. A dusting powder for insecticidal and/or fungicidal purposes comprises: a mixture of desiccated milk and

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molasses in powdered form and an active agent, said mixture being highly hygroscopic and in the form of a dry powder which will become sticky when exposed to the atmosphere.

1,989,981 (Feb. 5, 1935; appl. Apr. 13, 1933). Insecticide. Clyde C. Hamilton, Highland Park, N. J.—Endowment Foundation, New Brunswick, N. J.—A mixture especially useful for killing ants contains one to two per cent of a thallium compound in a mixture having a ratio of approximately five pounds of sugar, four to five pounds of water, twenty-eight grams of agar and one-half pound of honey, said mixture having a jelly-like consistency with a stiffness so the mixture will not readily flow under ordinary temperatures yet will allow the ants to readily break off particles of the mixture.

1,990,490 (Feb. 12, 1935; appl. June 29, 1931). Method of Producing Insecticide and the Like. Joseph W. Horne and Carl P. Hopkins, Boulder, Colo.—The patentees claim the process of rendering a shale oil distillate miscible with water, comprising chemically combining the shale oil distillate with a mixture of a fatty acid and sulfonated wash water derived from the treatment of sulfuric acid sludge recovered from refining shale oil, allowing the latter mixture to react with the shale oil, and the adding sufficient alkali-containing product to the reaction product in the presence of heat to form a soap, whereby the final composition is rendered miscible with hot or cold water. The principal object of this invention is to take advantage of the toxic value of shale oil for use in insecticides, germicides, fungicides, ovicides, and the like.

1,991,938 (Feb. 19, 1935; appl. Apr. 5, 1926. Renewed Sept. 23, 1932). Volatile Fumigant Package. Harry W. Houghton, Glen Echo, Md.—Safety Fumigant Co.—The patentee claims a sealed package containing a slowly volatile liquid mixture comprising carbon tetrachloride and acetone having hydrocyanic acid and cyanogen chloride in the form of a gaseous combine absorbed therein whereby a gaseous fumigant is evolved upon exposure of said liquid to the atmosphere.

1,992,533 (Feb. 26, 1935; appl. Jan. 23, 1933). Method of Producing Alkyl Thiocyanates and Similar Esters. William M. Lee, Bala-Cynwyd, Pa.—A method of producing secondary and tertiary alkyl thiocyanates consists in agitating secondary and tertiary alkyl esters of acids stronger thiocyanic and a salt of thiocyanic which is reacted upon by said stronger acid to release thiocyanic acid therefrom, whereby the liberated thiocyanic acid reacts with the alkyl residue of said stronger acid to produce therefrom secondary and tertiary alkyl thiocyanates.

1,993,040 (Mar. 5, 1935; appl. Dec. 29, 1932). Parasiticide Derived from Higher Alcohols. Paul L. Salzberg and Euclid M. Bousquet, Wilmington, Del.—Grasselli Chemical Company, Cleveland, Ohio.—A parasiticide comprises a compound of the formula $R-(CNX)$ in which R is an aliphatic hydrocarbon radical directly attached to the (CNX) group containing at least 6 carbon atoms, X is an element of the sulfur group consisting of sulfur, selenium and tellurium, and the group (CNX) stand for the radicals thiocyno, iso-thiocyno, selenocyno, iso-selenocyno, tellurocyno and iso-tellurocyno. Examples are lauryl, cetyl, stearyl and octyl thiocyanates.

Pyrethrum

1,990,422 (Feb. 5, 1935; appl. May 13, 1932). Insecticide. Robert C. White, Philadelphia, Pa.—The patentee claims a composition of matter comprising pyrethrum extract, "thioquinazole" and methylprotocatechuic aldehyde. "Thioquinazole" is a trade product, a thiocyanate of the methoxymethyl vyano propionate group. Methylprotocatechuic aldehyde is a synthetic of the vanalin group which has the property of imparting to products having a hydrocarbon base a very definite food flavor of the odor of vanillin.

Derris and Cube

French Patent 769,455 Insecticide. Containing extracts of Quassia amara wood, vegetable oil, and rotenone, stabilized by saffrafrs oil. An emulsion of oleic acid and ethan-olamine gives wetting power.

Literature Cited

1. Bosquet, E. W., Dietz, H. F., and Salzberg, P. L. New Contact Insecticides from Fatty Alcohols. Dept. of Agriculture News Letter, May, 1935.
2. Breakey, E. P., and Miller, A. C. Hallowax as an Ovicide. Jour. Econ. Ent. 28 (2) 1935.
3. Bureau of Ento. and Plant Quarantine. Circular E-343, April, 1935.
4. Cory, E. N., and Langford, G. S., Sulfated Alcohols in Insecticides. Jour. Econ. Ent. 28 (1) 1935.
5. Neiswander, C. R. Experiments on the Control of Two Greenhouse Mealy Bugs, *Phenacoccus gossypii* and *Pseudococcus citri*. Jour. Econ. Ent. 28 (2) 1935.
6. Richardson, H. H. A Progress Report on the Control of the Mexican Mealy Bug, *Phenacoccus gossypii*, on Greenhouse Chrysanthemums. Jour. Econ. Ent. 28 (2) 1935.
7. Roark, R. C. Advantages and Limitations of Organic Insecticides. Jour. Econ. Ent. 28 (1) 1935.
8. Wilcoxon, F. and Hartzell, A. Further Experiments on Organic Thiocyanates as Insecticides. Jour. Econ. Ent. 28 (1) 1935.
9. Anonymous. Bedbug Liquids. SOAP. 11 (3): 87-88, 109, 1935.
10. Argall, C. B. K. Japanese Pyrethrum, Its History, Cultivation, Uses and Sales. Chemist & Druggist, Dec. 22, 1934.
11. Baker, E. Notes on Experiments made with the Object of Finding an Efficient and Economical Insecticide Spray for the Destruction of Mosquitoes and Flies. Jour. Royal Army Med. Corps, 62, 1934.
12. Goesswald, K. Pyrethrum. Ztschr. Angew. Ent. 20:489-530. (Abstract in SOAP. 11 (2): 95, 1935).
13. Ginsburg, J. M., Schmitt, J. B., and Granett, P. Utilization of a Completely Refined, Low-Boiling Petroleum Distillate in Controlling Insects Infesting Chrysanthemums and Other Plants. Jour. Econ. Ent. 28 (1):326, 1935.
14. Haegle, R. W. Sprays for Control of the Prune Worm (*Mineola scitulella*). Idaho State Hort. Assoc., 38th Ann. Convention. (Abstract in SOAP, 10 (12):103, 1935).
15. Headlee, T. J. Codling Moth Control. N. J. Agr. 15 (2):4-5. (Abstract in SOAP, 11 (3):107, 1935).
16. Kemper, H. Testing Insecticide Powders. Ztschr. Angew. Ent. 21:208-223, 1934. (Abstract in SOAP, 11 (2): 101, 1935.)
17. Le Pilley, R. H. Pyrethrum-Extract Spraying for the Control of Antestia on Coffee, Etc. Kenya Colony Dept. Agr. Bulletin 8, 1934.
18. Profft, E. and Korting, A. Pyrethrin Content of Dalmatian Pyrethrum Preparations. Landw. Jahrb. 79: 415-430, 1934. (Abstract in SOAP, 11 (2):95, 1935.)
19. Ries, D. T. A New Mite (*Neotetranychus buxi*, n. s. Garman) on Boxwood. Jour. Econ. Ent. 28 (1):55-62, 1935.
20. Ripert, J. A New Method of Analysis of Pyrethrum Products. Bul. Annales Falsifications et Frauds, No. 312. 29 pp. (Abstract in SOAP, 11 (4):103, 1935.)
21. Searls, E. M. and Snyder, F. M. The Control of Some Ectoparasites of Laboratory Rats by Atomized Pyrethrum Extracts in Oil. Jour. Econ. Ent. 28 (2):304-310, 1935.
22. Steiner, H. M. Immediate and Residual Effects of Certain Insecticides on the White Apple Leafhopper. Jour. Econ. Ent. 28 (2):385-388, 1935.
23. Tattersfield, F. and Martin, J. P. Loss of Activity of Pyrethrum. Jour. Agr. Science 24, 4 Oct., 1934.
24. Badertscher, A. E. and Wotherspoon, R. Derris and Pyrethrum Powders. SOAP, 11 (4):87-89, 11, 113, 1935.
25. Burdett, R. C. Derris Dusts and Oil-Lead Arsenate Spray for Squash-vine Borer (*melittia satyriniformis* Hbn.). Jour. Econ. Ent. 28 (1):229-231, 1935.
26. Cahn, R. S., and Boam, J. J. The Constituents of Derris Resin. Jour. Soc. Chem. Ind., 54:42T-45T, 1935. (Abstract in SOAP, 11 (4):99, 1935.)

(Turn to Page 113)

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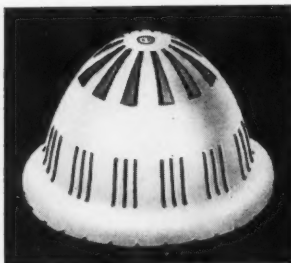
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What of the Copeland Bill?

By JAMES F. HOGE*

Chief Counsel, The Proprietary Association

THE Senate's passage of the Copeland Bill on May 28th signalized the consummation of a long struggle for improved food and drug legislation. It began in June, 1933, with the introduction of S. 1944, the Tugwell Bill. That, perhaps, was as fantastic a piece of legislation as has been proposed on a national scale, affecting such vast interests as those of foods, drugs, cosmetics, publishers, and related businesses. It followed the pattern of legislation recently annulled by the Supreme Court. In January, 1934, it was revised as S. 2000; later as S. 2800; then S. 2800, Calendar No. 520, and this year as S. 5.

Industry, in the main, has recognized that improved food and drug legislation is required in the interest of the public and in the interest of legitimate industry. Manufacturers and distributors of foods, drugs and cosmetics, indicated as they are for vital human needs, and affecting the public health, must assume the burden of using extraordinary care in maintaining high standards of quality and in determining the truth of claims made for their products. Opposition to the proposed legislation has been to form and specific provisions, rather than to improved legislation and to the purposes of S. 5 in that respect.

Following debate in the Senate and further consideration by the Commerce Committee, S. 5 was revised to conform to the pattern of constitutional legislation. In that form it passed the Senate and stands before the House as a fair and reasonable bill which will serve well the public interest and command the respect of that part of industry which recognizes its interest and the public's as mutually existent.

Therein is a clew to considerable of the previous difficulty. Among the proponents, some have failed to realize that legislation to be of ultimate service to the public must be fair and practical in its application to industry. Among the opponents, some have failed to realize that effective protection of the public will enlarge the field of reputable business. An unfortunate phase of the movement for new legislation has been the emotional and sentimental aspects, prejudicial attitudes, isolated instances of abuses enlarged out of all proportion, and objectives not quite consistent with those declared.

Greater than those, however, in its threat to the security and prosperity of industry is unscrupulous competition. The fraud, the faker and the parasite must go,—not only for the good of the consumer, but for the good of the producer. There is no justification in economics, less in morals, and soon none in law, for the sale of goods through claims of value beyond the real value of a product, or through claims of uses for which the product is not fitted.

Now, the Copeland Bill does not meet all industrial ideas with respect to food and drug legislation. Perhaps no bill would. Industry generally preferred amendment of the existing law. The Mead Bill took that form. Many preferred that advertising control remain with the Federal Trade Commission and that the Commission's powers be enlarged. The preference in that respect was emphasized by objection to criminal prosecution, authorized by the Copeland Bill, for all alleged violations of the bill's broad advertising provisions.

Before passage, the bill was corrected in numerous of its objectionable definitive provisions, as, for instance, devices were given a separate definition instead of being included in the definition of "drug"; the variation clause of the existing law was preserved; advertising was taken out of the category of adulteration; claims for drugs may

be "supported" instead of "sustained" by opinion; scientific, as well as medical, opinion may be adduced to support claims; warnings may not be prescribed in manner and form by the Secretary; antiseptics must meet a factual standard rather than one prescribed by the Secretary; and factory inspection does not carry with it formula disclosure and injunction against shipment upon refusal to comply with the inspectors' demands.

The reasonableness of the measure, however, arises principally out of its having been amended to restrict the power to expand the law by regulations, to limit seizures, and to avoid promiscuous criminal prosecutions for advertising offenses. They were the grievous aspects of the measure. The power to extend the law by regulations has now been restricted to administration chiefly or else confined to technical fields in which boundaries have been prescribed by the bill itself.

The power to seize is no longer unlimited or committed to station chiefs and department employees to exercise without process. All seizures now will be on process pursuant to libel. Multiple seizures may be made in cases of alleged adulteration. In cases of alleged misbranding, however, seizures are limited to a single seizure unless the misbranding is such as to render the article imminently dangerous to health or unless the misbranding has been the subject of a prior judgment in favor of the Government. Where one seizure is made the action may be removed to the manufacturer's residence for trial. Where multiple seizures are made the actions may be consolidated and tried in the manufacturer's residence. The bill in an earlier edition would have required the manufacturer to defend the actions anywhere they were instituted in the United States, no matter how many actions were instituted and no matter how far from the manufacturer's residence.

The inclusion of a provision for civil action in false advertising cases is also important. The bill had been highly objectionable in its provision for criminal prosecution in all cases of alleged false advertisement. Under the broad definitions of the bill innumerable issues of fact and differences of opinion will arise between the administrator and the advertiser. It was not fair to empower the administrator to haul reputable people into criminal courts whenever he and the advertiser could not agree on facts or opinions. The bill now provides for civil suit to collect a civil penalty in cases in which the alleged violation does not involve imminent danger to health or gross deception and is established by opinion evidence. Criminal prosecution still applies to wilful violations and to factual violations which involve imminent danger to health or gross deception. This change makes the bill fairer, and, because it is fairer, more effective. It renders unnecessary any provision for reviewing the administrator's decision preliminary to his proceeding and thus avoids the delay and confusion which would accompany such review. And, in time, promiscuous criminal prosecution would not have been agreeable to the courts.

With the improvements in its application to industry, the bill still affords new and extended consumer protection in the following, among other, particulars:

It applies to cosmetics and remedial devices, neither of which has been subject to the present law; the advertising of foods, drugs, devices, and cosmetics is subjected to legal supervision corresponding to that applied to labeling; factory inspection is authorized; affirmative (as distinguished from solely negative) labeling is required; the

(Turn to Page 101)

* Address before the 21st annual mid-year meeting, National Assn. of Insecticide & Disinfectant Mfrs., Chicago, June, 1935.

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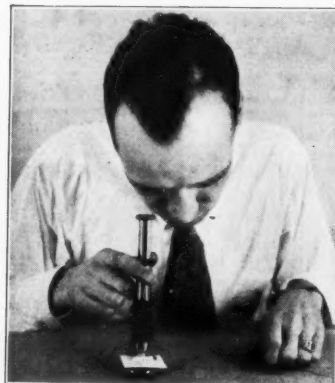
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Men's Contribution to The Termite Invasion

By F. K. HARDER*

Harder Exterminating Co.

WHATEVER the causes of this very modern infestation of termites in American homes may be, it would seem certain that man had donated his share of the contributory factors. Of course the termite has been in existence, as we know, for millions of years and during that time has been doing a most important job on earth. When we consider that the termites have been speeding up the decomposition of wood in our forest areas, demolishing the old roots of dead trees, broken branches, and fallen trees, and when we realize that they digest each mouthful of this wood as it goes through their systems, passing it out as a grain of humus, we will be able to get some idea of the tremendous economic value of the insect which all mankind is organizing to fight. Without the termite, we would be forced to exist in a land of petrified forests. Without the termite, we would find our soil made up of nothing but pulverized rock and rotten wood. It is not possible to grow vegetation in rotten wood. If you were to examine closely a piece of wood that has been attacked by termites, you would find the galleries clogged with a muddy substance. This is the termite's contribution to the soil. It contains bacteria and supplies the soil with whatever we require in enrichment. There are many reasons for believing that the termite has made possible mankind's existence on earth today. It may seem strange to many of us that an insect whose importance we have just described should constitute such an important factor in human affairs. Now what is it that has caused such a violent reversal of the scheme of things in which we find man fighting his best friend in the insect family.

We have heard of the shrinking and drying up process through which the earth is now passing. We have been acquainted with the great entomological cycles that may be responsible for a swarming over the earth of a particular type of insect like the 17 year locust; but it is very possible that this reversal of the scheme of things is not because the insect family has decided to do away with mankind but because mankind has moved into the sphere of the insect. Let us examine this for a moment.

Fifty years ago we had large wooded areas all tangled with underbrush and broken branches,—a perfect setting for the habitation of the termite family. Several things have happened to these huge wooded areas of fifty years ago. We have cut our timber. We have increased the number of forest fires by our own carelessness. We have established parks, parkways, huge real estate developments in the very areas in which the termite family found its natural home. And when in the swarming season, the flying termites emerged and the wind carried them through the country and there was no screen of underbrush to sift the flyers out before they left the forests, the wind blew them out of the woods and across the country. Possibly that accounts for the fact that we find termites in the middle of huge fields where ten years ago entomologists rarely discovered them. Then as these flyers had been carried across country, we find them deposited in residence sections far removed from any original termite colony. They had only to find their way into a piece of new wood in the sill or to dig themselves into a hole beside someone's porch where they might feed temporarily on the peat moss and leaf mold and humus that has been put

into the soil for fertilizing purposes and then send out scouts from their new colony to search for new woody supplies of food.

In addition to this, we have made a practice of carrying our ornamental trees and many types of horticultural specimens way across the country, carrying with their roots a sufficient ball of earth to make possible their transplanting, and in that ball of earth we have transplanted termites which have crossed and intercrossed in breeding so that we have undoubtedly greatly speeded up the breeding propensities of our now domesticated termite family.

Then here particularly we have literally invited the termites into the house. We have hung out a sign on our colonial architecture of American homes, calling the termite's attention to the ideal construction affording the termites easy access to the wood within. We have built close to the ground, with our clapboards and shingles in many instances going into the soil. We have advised the termite that we will supply him with a heated cellar wall 365 days a year. In other instances, we have even built a hotel for our termites and constructed a wall of concrete blocks offering them a closed perfect damp area with an abundance of wood to eat at the top,—and that wood is the sill of the house.

Fifty years ago these conditions did not exist. Our cellars were cold even in summer. Our floor-beams were exposed. In those days we used seasoned lumber; today we use kiln-dried material which seems to offer a particular attraction to termites. We leave unexcavated areas under sections of our houses with steam pipes going through, thus improving the breeding facilities of any insect life that may happen to be there. Is it any wonder then that the whole country seems topsy-turvy with an invasion of insect life costing untold amounts in reconstruction and repair?

Well, what will we in an industry that deals chemically with insect life propose to do about it? We are equipped with considerable information supplied by scientists whose experiments are properly recorded and whose scientific advice is indeed of great value. We have government agencies who operate in the scientific field dealing with this problem and their advice is of unquestioned value. And then too we have our chemical houses whose laboratories are continually supplying us with new toxic chemicals with a scientific laboratory background and their advice is of the greatest importance. We have to decide whether we are going to fight this scourge with soil chemicals, with wood impregnation, or with practical construction.

In placing chemicals in the soil we are faced with the greatest possible number of difficulties. The process of leaching out or the slow dilution of chemicals by the continuous action of soil moisture,—by this process many of our chemicals lose their strength. We can not use organic chemicals, pyrethrum nicotine or rotenone derivatives, because as soon as they become affected by the various organic salts in the soil they break down into a tremendous number of other organic salts with no toxic value whatever. The use of arsenicals is always to be discouraged or for that matter almost any chemical, unless it is being used by one thoroughly acquainted with the subject. More harm and less good can be done here than almost anywhere else. Inorganic chemicals used for this

* Address before N. Y. Society of Exterminators and Fumigators, New York, June 20, 1935.



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purpose have a tremendous hazard to horticulture, and soil impregnation can rarely be used in suburban areas outside of homes for this reason. Wood impregnation is a practice that encounters probably just as many unfortunate difficulties, for where it is possible to impregnate wood with chemicals, toxic to insects, we have to consider the danger of collapsing wood and dangerously affecting buildings. Oily chemicals used for this purpose increase the fire hazard and cause nails to loosen and most of them carry with them unpleasant odors that make life miserable in the house. We must also consider in wood impregnation the habit of the termite of building a termitary over the side of any construction that he can not enter, thus because of impregnation the sill becomes just as much an undesirable food to the termites as an iron girder, and there is a chance that he may build his termitary right over the side of it and as far up in the construction of the building as necessary to find good food.

The third principle of termite prevention is in practical construction. Here the exterminating industry is going to find a great many pitfalls. The Department of Agriculture in Washington has tried countless chemical formulae and has found itself after years of experimentation back to the method of construction for prevention. It is difficult for an exterminating company to go deeply into construction problems without a contractor's background. But there is a great deal of value to the principle of constructing the bottom of a house termite-proof just as the top of the house is constructed water-proof.

The exterminating industry faces a period of tremendous activity fighting termites. If there were ever an opportunity for intelligent salesmanship it is now, for we have never been faced with an insect problem of such magnitude. I do not believe the secret of successful operation against termites along the lines of any one system has yet been discovered, if indeed it ever can be. But it is quite evident that if any success is to be attained in termite control, it will have to be attained by a combination of these three methods, soil impregnation, wood impregnation, and termite-proofing. Any company not equipped with expert knowledge and experience in these fields will find that they have failed to build any structure for good future business, if they propose to blunder along into the termite control industry by the trial and error method. Research and scientific study are essential and practical experience much to be desired.

There are some companies trying to fool the public by advertising the sale of certain products which they claim will kill all termite colonies in a building by merely spraying the liquid about. Nothing could be farther from the truth of more misleading to the public. Yet it is possible that some of these companies may really, in their ignorance, believe that the spray method will give the desired results. This is the kind of practice that our industry should frown upon. It must be remembered that the chief duty of this organization is to improve the business standards of practice so that results can be achieved in the highest measure possible, and it is in the interests of this principle that these addresses are made.

Ed. Note: Another address on the termite situation, presented by G. E. Sanders, president of the Sanders Exterminating Co., New York, before the New York Society at the same meeting will be published in an early issue of *Soap*.

Damonco Floor Products Co., floor maintenance engineers, Philadelphia, have relocated at 1203 Poplar St.

Coast Products Co., janitors' supplies, Seattle, is now in new quarters at 4211 Densmore St.

Bryson Exterminating Co., Neptune, N. J., moved recently from 1407—7th Ave. to 157 Prospect St.

WHAT OF THE COPELAND BILL?

(From Page 97)

establishment of certain standards for foods, as well as for drugs and cosmetics, is authorized; the necessity of proving fraudulent intent is removed and it is now sufficient for conviction to show merely falsity or deception; claims of therapeutic effect for drugs and devices must be supported by scientific facts or medical or scientific opinion; deceptive containers are prohibited; advertisement of drugs or devices as having any therapeutic effect in the treatment of certain serious and incurable diseases is prohibited; penalties for violation of the law have been substantially increased; injunction proceedings are authorized against the shipment of adulterated or misbranded foods, drugs, devices and cosmetics, and the dissemination of false advertisements respecting them.

There are many other respects in which the public will receive greater protection than now. As it receives it, legitimate industry, in turn, will receive protection against unscrupulous competition. In a word, the standards and prohibitions now have been largely stated in the bill itself and ready access to the courts have been preserved for both industry and the administrator. As it stands, the bill is fair at the same time it is effective. In the long run, only that kind of legislation will serve the public interest.

To that end, it should be defended by all advocates of effective consumer protection. That means it should be defended against the theorists and professional reformers as well as against industrial chiselers. Industry will be ill-advised to oppose its passage or to attempt its emasculation. On the other hand, it will be well-advised to oppose any effort inspired by privilege, prejudice, or private purpose.

After the enactment of a federal law there will arise the question of uniformity between federal and state statutes. While there is not now perfect uniformity, most of the state laws have, at least, been modelled upon the existing Federal Food and Drugs Act. That fact has influenced industry in its preference for amendment of the present law. It was thought that uniformity might be more quickly and easily achieved if the new federal legislation took that form. However, state legislatures, presumably, will be inclined toward following the federal model. It will require time. There will be some confusion, some uncertainty, and some difficulty. It is a matter for the continuing attention of your Association.

With the prospect of enactment of a new food and drug law likely, it is appropriate at this time to suggest cooperation with the enforcement officers. The new law will come through industrial cooperation. The administration of it must come over the same course.

The law will take effect one year after enactment. Necessarily there will be uncertainty, confusion, and problems of various kinds and degrees in preparing for the administration and application of it. Opportunities will arise for the industry to lend a helping hand. The opportunities should not be refused. The helping hand should not be withheld.

A booklet just published by Cooper, McDougall & Robertson, Ltd., Yalding, England, gives an account of the excellent results in insect control by the use of derris root preparations. It is stated that derris is obtainable from 40 species of plants grown in various parts of the tropics, mostly wild and varying in toxicity. The concern has its own derris plantations in the Malayan Peninsula.

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Comparative Testing of Antiseptics

THE efficiency of an antiseptic may be tested by comparing laboratory, practical and clinical results. Such a comparison, using one of the better known commercial antiseptics, is reported by Dr. George F. Reddish in the June issue of *Standard Remedies*.^{*} When this antiseptic was subjected to the standard laboratory method for testing this class of antiseptics, five cc. of it killed all the *Staphylococcus aureus* contained in 0.5 cc. of broth culture within 15 to 90 seconds at 37° C. *Staphylococcus aureus* is the most common cause of suppuration and is practically always involved in infections of the skin, mucous membranes, and wounds. It is also the most resistant of the disease-producing bacteria found on the skin and mucous membranes. Since 1925, the Food and Drug Administration has required liquid antiseptics which are recommended for short time application to kill approximately 350,000,000 *Staphylococcus aureus* by the standard laboratory test within five minutes. The antiseptic used killed this number in from 1/20 to 1/3 the necessary time period.

How effective will an antiseptic which passes the government standard test be in killing bacteria under practical conditions of use? Applying a method developed at Johns-Hopkins University, bacterial counts were made of the mouth cavity before and after gargling with the antiseptic, and the reduction in the number of bacteria computed. The numbers of bacteria in the mouth and throat were reduced as much as 98.7 per cent, with an average of 96.7 per cent. These reductions were observed 15 minutes after the antiseptic had been used as a mouth wash and gargle. Reduction in bacterial numbers lasted from two to four hours.

One investigator made 152 tests on the bacterial reduction in the mouth following the use of this antiseptic as a mouth wash and throat gargle, and found four hours after such use an average reduction of 64 per cent. Another laboratory found the following average reductions in bacterial count of the mouth after the antiseptic had been used in thirty tests: 5 minutes, 94.6 per cent; 15 minutes, 96.7 per cent; 30 minutes 87.0 per cent; 1 hour, 79.5 per cent; and 2 hours, 66.3 per cent. The water control, which was the same quantity of plain water used as a mouth wash and throat gargle, mechanically removed mouth bacteria to the extent of 35 per cent. The difference is therefore due to the germicidal ingredients of the antiseptic. All of the bacteria in the mouth and throat are not killed, but their numbers are reduced to a significant degree, and that is all that is expected of any antiseptic under conditions of practical use. No germicide will completely sterilize the skin, mucous membranes, or infected tissue without doing serious damage to the tissue. By reducing the bacterial numbers to a significant degree, the desired purpose is accomplished.

^{*} Address before Scientific Section, Proprietary Assn., June, 1935.

Reduction of the bacterial count on skin and mucous membranes is of great importance because the number of disease-producing bacteria present on any body tissue has a direct relation to the possibility of infection. If large numbers of bacteria are present, the danger of infection is greater. If the numbers of bacteria are reduced, the danger of infection is lessened. Since this is true, it is to be expected that the clinical use of an antiseptic will in fact reduce the incidence of infection. A special clinical study has been conducted during the winter months over a period of three years, to test the value of antiseptic in preventing infection of the upper respiratory tract, colds and sore throat.

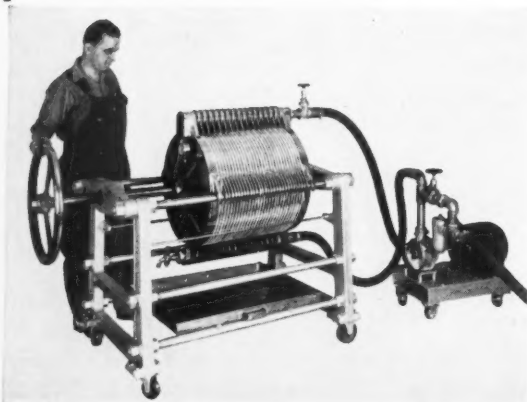
According to competent authorities, colds and sore throat are caused by infectious micro-organisms. The bacteria associated with these conditions are found in the mouth and throat even in normal, healthy individuals. By reducing the numbers of these micro-organisms in the oral cavity, it is possible to reduce infections caused by them. The clinical study was conducted in three different geographical locations. Regular factory employees were used as subjects. One-half of the subjects gargled with the antiseptic and one-half acted as controls. Both groups worked under the same conditions and in the same rooms. Each experiment was conducted under the direct supervision of a registered nurse and under the general direction of a physician. Detailed records were kept of the number of colds suffered by each individual, the number of days each cold lasted, the number of cases of sore throat and the days' duration of each, and the time lost from work due to colds and sore throat.

Those using the antiseptic showed a reduction in the number of colds and sore throat and in the severity and duration of such infections. The results of the first year showed that the group which gargled with the antiseptic twice daily contracted approximately one-third as many colds as the control group; the total days of illness due to colds was only one-fifth that of the control group, and the days lost from work due to colds approximately one-fourth as many as lost by the control group. The following year the results were not so striking due to irregular employment and hence irregular test conditions. The next year in those plants having regular employment, approximately the same results were obtained as in the test conducted during the first year.

These investigations prove the adequacy of the standard laboratory method of testing the germicidal efficiency of liquid antiseptics. An antiseptic which passes the laboratory test kills large numbers of bacteria under practical conditions, and under clinical conditions of use, materially aids in preventing infections and mitigating such diseases once they have started.

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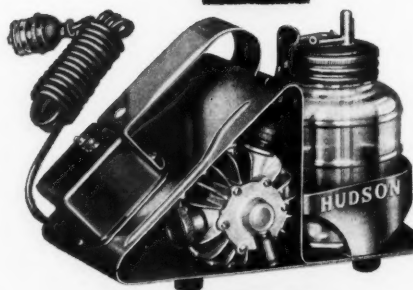
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Sulfated Alcohols in Insecticides

BECAUSE of the favorable characteristics of sulfated alcohols such as their stability in acid and alkaline solution and hard-water resistance, they have been studied to ascertain their value as toxic agents for insects, and as emulsifying and wetting agents in insecticides. The materials used were commercial forms of sodium lauryl sulfate, sodium octadecyl sulfate, sodium oleyl sulfate and sodium oleyl sulfate special,—the latter two being derived from oleyl alcohol by esterification under different conditions.

With grasshoppers as test animals, sodium lauryl sulfate and sodium oleyl sulfate special were the most toxic. These compared favorably with neutral potassium coconut fatty acid soap. A spray of sodium lauryl sulfate at a dilution of 1 per cent of the commercial product gave a kill on cabbage aphid varying from 92 to 98 per cent, and on red spider the kill was 94 per cent. At a dilution of 0.5 per cent of the commercial product, the kill was 71 per cent for red spider and 20.5 per cent for the cabbage aphid. Sodium oleyl sulfate special at 1 per cent solution of the commercial product killed 92 per cent of cabbage aphid.

Plants vary in their susceptibility to injury from sulfated alcohols. Snapdragons will withstand a 1 per cent solution of sodium lauryl sulfate, while a solution containing more than 0.25 per cent will injure chrysanthemums. Lantana is injured by 0.5 per cent solution. Sodium oleyl sulfate special is slightly more injurious to foliage than sodium lauryl sulfate. These findings indicate that sulfated alcohols cannot be used alone as insecticides until the factor or factors causing plant injury are discovered and reduced.

As a carrier for other insecticides, some of the sulfated alcohols appear to have potentialities. Preliminary tests with solutions containing 0.02 per cent pyrethrins in addition to the following, gave average kills on the Mexican mealy bug as follows:

	Per Cent	Per Cent kill
Sodium lauryl sulfate...	0.25	Commercial product. 62.2
Sodium lauryl sulfate...	0.50	Commercial product. 100.0
Sodium oleyl sulfate spec.	0.25	Commercial product. 57.0
Sodium oleyl sulfate spec.	0.50	Commercial product. 100.0
The above materials alone gave the following results:		
	Per Cent	Per Cent kill
Sodium oleyl sulfate spec.	0.5	Commercial product. 45.0
Sodium lauryl sulfate...	0.25	Commercial product. 0.
Sodium lauryl sulfate...	0.5	Commercial product. 23.8
Pyrethrins alone in.....	0.02	Solution..... 33.8

These commercial products do not contain 100 per cent of the ester, but considerable sodium sulfate in addition to the alcohol sulfate. The active material in the products used was found to be: Sodium lauryl sulfate 50 per cent, sodium octadecyl sulfate 60 per cent, sodium oleyl sulfate 28 per cent and sodium oleyl sulfate special 45 per cent.

As a mosquito larvicide both sodium lauryl sulfate and sodium oleyl sulfate special at a dilution of 0.5 per cent of the active ingredients showed decided toxicity. Sodium lauryl sulfate when used at the rate of 0.5 per cent in an aqueous solution of pyrethrins at the rates of 1 part to 1 million and 1 part to 5 million, increased the speed of action nearly to four times in each dilution. Sodium oleyl sulfate special in similar tests, added to aqueous solutions of pyrethrins up to 1 part to 1 million, showed an increase in the speed of action of approximately two and a half times.

These materials are also good emulsifying agents for petroleum oils, pine oils and carbon bisulfide, sodium lauryl sulfate and sodium oleyl sulfate special being the best. Other advantages are excellent wetting power for such waxy leaves as cabbage and kohlrabi, and their ability to aid in the removal of lead and arsenic residues. Ernest N. Cory and George S. Langford. *J. Econ. Entomology* 28, 257-60 (1935).

LIMITATIONS OF PHENOL COEFFICIENT

The following is a brief summary of the paper by Dr. Emil Klarmann, chief chemist of Lehn & Fink, Inc., before the recent mid-year meeting of the National Association of Insecticide & Disinfectant Manufacturers at Chicago.

"Although the B. typhosus phenol coefficient is used extensively as an index of the germicidal potency of coaltar disinfectants, it is deemed desirable at this time to restate its limitations in order to place it in the proper light. In the case of the alkyl phenol derivatives, the germicidal effect upon B. typhosus of the lower homologs, parallels that upon other vegetable pathogenic microorganisms to such an extent that the B. typhosus phenol coefficient may be regarded as a relative measure of the germicidal potency of these compounds. Since cresylic disinfectants contain the lower phenol homologs as the active principle, the same consideration would apply in their case.

"In the case of commercial tar-oil disinfectants, there exists no quantitative relationship between the effect upon B. typhosus and that upon other microorganisms; i.e., in this group of disinfectants the B. typhosus phenol coefficient is not a proper measure of the germicidal potency. This is borne out by the fact that some tar-oil disinfectants, with high B. typhosus phenol coefficients, may be less effective against other pathogenic microorganisms than those with lower phenol coefficients, or that of two products with the same phenol coefficients, one may be a better general germicide than the other. If the B. typhosus phenol coefficient alone is taken into consideration, the relative germicidal value of such products is placed in the wrong light.

"This difficulty arises mainly from the indefiniteness of the composition of the tar oil disinfectants, and more

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particularly, from the variation in the ratio of phenolic to non-phenolic constituents. The latter, consisting mostly of naphthalene hydrocarbons, appear to have a specific effect upon *B. typhosus* and some related bacteria, such as *B. dysenteriae*, but are much less effective, or practically ineffective against other pathogenic microorganisms.

"In response to a request from Dr. Reddish for suggestions concerning better methods of evaluating disinfectants than furnished by the *B. typhosus* phenol coefficient, Dr. Klarmann proposed the introduction of a "Streptococcus hemolyticus phenol coefficient," to be determined in each case in addition to the *B. typhosus* phenol coefficient. He stated that it is possible to grow resistant strains of this microorganism under standard condition so as to permit a standardization of their resistance to phenol. While it is customary at the present time to prepare dilutions for practical disinfecting purposes so as to make them correspond to a 5 per cent phenol solution in their effect upon *B. typhosus*, the speaker expressed the view that such solutions should also be destructive to resistant strains of *Streptococcus hemolyticus*. The matter was referred to the Standardization Committee for study and recommendations to be presented at the next convention."

C. Norman Dold of the Rose Rat Exterminator Co., Chicago, chairman of the arrangements committee for the annual convention of the National Association of Exterminators and Fumigators, which will be held in Detroit on October 21, 22, and 23 at the Hotel Statler, has announced that preliminary plans are already under way to double the attendance this year compared with the convention held last year in St. Louis. The most extensive program yet attempted is being planned. It is anticipated that every state in the Union will be represented in Detroit in October.

M. H. Oachs, president of the Exterminating Materials Co., New York, recently completed twenty years in the manufacture of exterminating materials and supplying exterminating service. He has been widely known in the exterminating field and has been active in the affairs of the New York Society of Exterminators and Fumigators, of which he is a member of the board of directors. Mr. Oachs is also president of the Ozane Company, New York. He is a chemist with a degree in this subject. He is the originator of several exterminating devices and products.

A concern in Santiago, Chile, is interested in purchase of or agency for American insecticides for moth control. Interested firms may communicate through the U. S. Bureau of Foreign & Domestic Commerce, mentioning inquiry number 8989.

A composition for killing bugs and vermin consists of an aqueous solution of alum containing gum arabic. Emil Burghardt. Austrian Patent No. 141,167.

FLIT ENJOINS INSECTICIDE CAN

Stanco, Inc., New York, manufacturers of Flit, have secured an injunction against the Sun Klean Chemical Co., New York, in the U. S. District Court, covering the alleged use of a yellow can with a black band similar to the Flit can for their Sun Klean Liquid Insecticide. Injunction proceedings have also been instituted by Stanco, Inc. against the Nu-Life Chemical Co., Brooklyn, and others, in the U. S. District Court at Brooklyn, to prevent this company from using the name "Fleat" on a yellow and black labelled can of liquid insecticide. Stanco, Inc. has indicated the intention of instituting court proceedings against all firms marketing their liquid insecticides in cans which they consider are designed to imitate the Flit package or which bear names that appear or sound similar to Flit.

NAPHTHALENE—PARA NOT REPELLENTS

Paradichlorobenzene, naphthalene and cedar oils were studied for their effectiveness as repellents, not fumigants, against clothes moths. Five tightly constructed boxes, numbers 1, 2 and 3 of approximately 10 cubic feet capacity, and numbers 4 and 5 of approximately 5 cubic feet capacity, each provided with a hinged door like a closet, were used. The door of each was opened about three inches throughout the experiment.

In box number 1 was placed a drip machine containing 100 cc. of cedar-wood oil, which slowly delivered the liquid into a porous wood container and thus furnished a constant volatilization into the air. Box number 2 was provided with a similar drip machine containing 100 cc. of cedar-leaf oil. On the floor of box number 3 was placed 2.5 ounces of paradichlorobenzene, which was renewed occasionally to maintain approximately this amount throughout the test. In box number 4, 2.5 ounces of naphthalene was placed. The amounts of paradichlorobenzene and naphthalene used would have been effective as fumigants in killing clothes moth larvae, had the boxes been kept closed. Box number 5 was left untreated as a check.

On the floor of each box, and behind the chemicals to be tested, were placed two pieces of uninfested woolen goods. After 24 hours, the fumes of the chemicals had thoroughly permeated the treated boxes. At intervals during the following ten days, adult clothes moths were liberated in the room until a total of 88 had been released. The closets were not disturbed during this ten-day period. The door of the room in which the boxes were placed was left open for about an hour each day, and the transom was slightly opened, so that there was no chance for the fumes to become sufficiently concentrated in the room to affect the moths. On the twenty-third day, eggs and a heavy infestation of young larvae were found on the woolen material in every box, although the odor of the chemical present in each case was very pronounced in the box and on the cloth itself. The larvae appeared to be normal in every way and were feeding freely.

MOTH SPRAY

- - A penetrating liquid, deadly to all moth life. Pleasantly perfumed, easily used without fear of stain. Sold for years by jobbers because of its effectiveness and ability to give really good results.



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Shipments under your own name and brand direct to your trade. We act as your factory and warehouse, leaving you free to devote your entire time to selling.

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1 3/4" SCREW
large opening—easy to fill

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Automatic—Reversible front or back drip—Non-rusting oxidized finish (nickel or chrome plated if desired)—Bottoms of copper not brass—Wicks included. Standard packing: Twenty-five to a carton.

Your name can be soldered or embossed on the face of this Drip Machine when purchased in quantities of 250 or more, at a slight additional cost.



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The fact that in these experiments the adult moths went into the treated closets as freely as into the untreated and deposited eggs which hatched, and that the larvae remained and fed on the flannel in all of the closets, shows that the chemicals used are of no value as clothes moth repellents. These tests are believed to approach closely the conditions that would be found in the average home.

The Food and Drug Administration of the U. S. Department of Agriculture has issued notices to the trade that paradichlorobenzene and naphthalene are ineffective as repellents for clothes, moth adults and larvae and that the sale of these products under representations that they will repel moths is a violation of the Federal Insecticide Act. W. S. Abbott and S. C. Billings. *J. Econ. Entomology* 28, 493-5 (1935).

WRIGHT RESIGNS FROM ZONITE

John H. Wright, vice-president and technical director of the Zonite Products Corp., New York, and secretary of the National Association of Insecticide & Disinfectant Manufacturers, resigned from Zonite June 15 after being associated with that company for the past twelve years, to enter the technical consulting field. He has established offices in the Chrysler Building, New York. He will engage in chemical and bacteriological development and research for manufacturers of drugs, antiseptics, disinfectants, insecticides, foods, cosmetics, caustic poisons, and allied products, with particular attention to new products, litigation, patents, plant design, formulae, packaging, label claims, and technical advertising. His immediate work will be chiefly in the field of the new federal food, drug and cosmetic law, which law he believes will develop innumerable problems for the manufacturer.

During the past year, Mr. Wright as secretary of the

insecticide and disinfectant association, has been concerned chiefly with the requirements of new federal and state food and drug legislation. He has been chairman of the Association's Legislative Committee and chairman of the National Committee of Manufacturers of Antiseptics. During his association with Zonite, he was in charge of the technical phases of Argyrol, Larvex, and Forhan's Tooth Paste. He has been retained by Zonite and the associated firms as general technical consultant. At the request of the Board of Governors of the National Association of Insecticide & Disinfectant Manufacturers, he will retain his connection as secretary.

HOLD TERMITE CONTROL FORUM

An open forum on termite control was held at the Building Trades Employers' Association, New York, on June 20 under the auspices of the New York Society of Exterminators and Fumigators. Following dinner, two addresses on termite control were made by prominent exterminators, F. Kenneth Harder of the Harder Exterminating Co., and George Saunders of the Saunders Exterminating Co. W. J. Simplin of Rose Rat Exterminating, president of the New York Society, then turned the meeting over to Dr. C. E. Cislak of Reilly Tar & Chemical Co., well-known termite expert, who also spoke on the subject. Dr. Cislak then conducted an open forum which consisted mostly of questions on termite control which he answered. The meeting was open to all exterminators and fumigators who cared to attend. About 135 were present. Other speakers included C. H. W. Hasselriis of Ratin Laboratory on "Rat Poisons," Henry W. Mahler of Mahler Exterminating Co., on "Fumigation," and William G. Buettner of Oscar G. Buettner & Son on "Price Cutting—Its Fallacy." Arrangements were in charge of N. K. Concannon, who stated that the series of open forum meetings will probably be continued in the fall.



View of the banquet of the National Sanitary Supply Association at the Hotel Morrison, Chicago, on June 13, at the close of the thirteenth annual convention of the Association at that hotel.

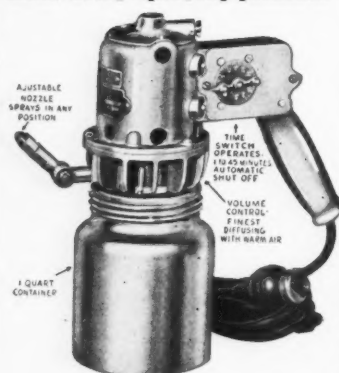
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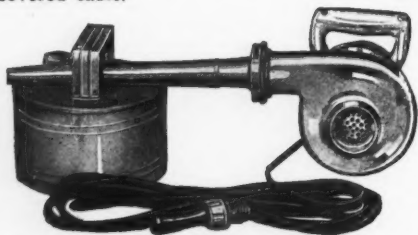
Get the facts on this sprayer before buying!

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**MODEL 54—
1 QT. CAPACITY**
It features an automatic time switch set at any point from 1 to 45 minutes—sprays desired amount without any attention whatever—automatically shuts off. Can also be used for hand spraying. Adjustable nozzle can be set for spraying in any position. Also exclusive volume control adjustment permits spraying one ounce every two to four minutes with either fine or heavy spray. **MODEL 53** same as Model 54 except does not have automatic time switch or adjustable nozzle.

Model 50 Fan Type unit. A fine insecticide atomizer. Sprays distance of 8' to 10'. 1/8 H.P. G.E. Universal Motor, 1 pint glass jar. 20' of rubber covered cable.



Model 6 Fan Type unit. Will break insecticide into a very fine mist. Sprays 18' to 20'. 1 1/3 H.P. G.E. Universal Motor. Norma Ball Bearings, 1 gallon metal container. This model is for larger institutions, warehouses, industrials, etc., and is also highly recommended for moth-proofing solutions. Write today for complete description and circulars.

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The Bashful Business Press

NEARLY ninety per cent of all American newspapers are members of the Audit Bureau of Circulations, the only recognized independent auditors of paid circulation publications. In the general magazine field, more than 76 per cent are members.

What a different picture the trade paper field presents! Publishers of business papers are so bashful, when it comes to having anything **known** about how many copies per issue go out, where they go, etc., that only 40 per cent are A. B. C. members!

And, unfortunately for advertisers to the soap, drug, chemical, sanitary products, cosmetic and allied fields, only 25 per cent of the business papers serving these manufacturing industries favor their customers with A. B. C. reports.

SOAP and two chemical engineering papers are the only three out of twelve claiming circulation in the general manufacturing and drug trades which are A. B. C. members. The others are long on **claims** but decidedly short on **proof**. Why?



New Peet-Grady Chamber of the Baldwin Laboratories.

An appropriation of \$110,000 for forest insect control work has been voted by the U. S. Public Works Bureau, the fund to be turned over to the Bureau of Entomology and Plant Quarantine for use in investigations looking toward development of better methods for control of insect pests. An additional grant of almost \$14,000,000 for similar purposes has been recommended by the Advisory Committee on Allotments, and if approved will be spent largely on eradication of the gypsy moth, control of white pine blister rust, and barberry eradication.

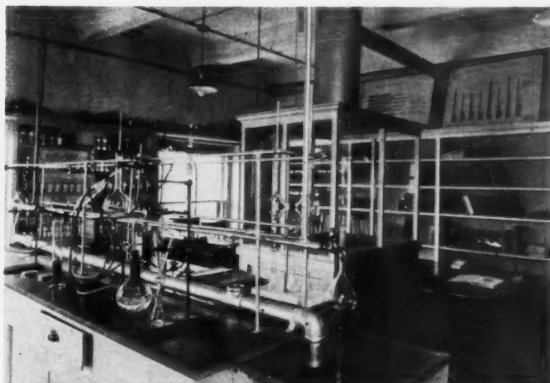
EXTERMINATING INSURANCE NOW AVAILABLE

The National Association of Exterminators and Fumigators has completed arrangements with a nationally known insurance firm so that exterminating and fumigating liability insurance can now be obtained by all firms that can satisfactorily meet certain requirements. Brokers authorized to negotiate for this coverage have been named and many firms have already signified their intention of applying at once for full coverage under the new policies. A chart worked out by the National Bureau of Casualty and Surety Underwriters shows insurance costs on the new policies to range from 1.935 per cent to 2.5 per cent, depending on the amount of coverage desired. A firm with a gross income of \$10,000, with fumigating work representing \$2,500 and exterminating \$7,500, would pay a minimum premium of \$250. In the higher brackets a firm doing \$100,000 worth of business, split up the same way, would pay a minimum of \$1,935. Coverage would be \$5,000 per person and \$10,000 per accident.

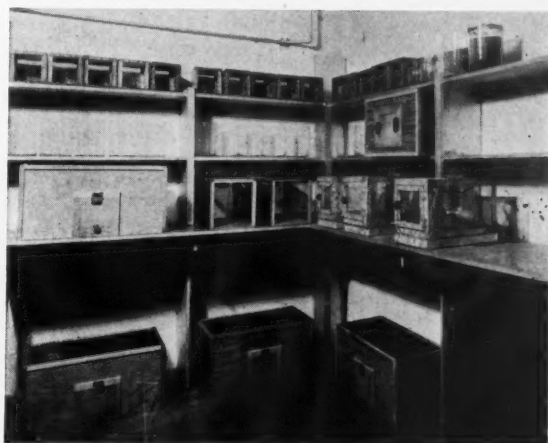
The advertising campaign of Rex Research Corp. in support of "Fly-Tox" is this year appearing in 4,300 weekly and daily newspapers throughout the country, with one insertion in each paper every week. Cartoons with insect characters carry the "Fly-Tox" advertising story.

NEW INSECTICIDE LABORATORIES

Baldwin Laboratories, Inc., Saegertown, Pa., have recently installed modern chemical and biological laboratories for testing and research on their household insect killer, *Dwin*, and kindred products. The laboratories are in charge of C. M. Gwin, formerly chief chemist and entomologist for the Arwell Products Co. The biological laboratory includes standard Peet-Grady equipment for testing insecticides, and complete fly breeding facilities. The chemical laboratory is fitted with the newest in modern equipment for insecticide testing. The chief research job being undertaken at the present time by Mr. Gwin is the experimental use of *Dwin* in the control of plant insects. A unique feature of this work is the



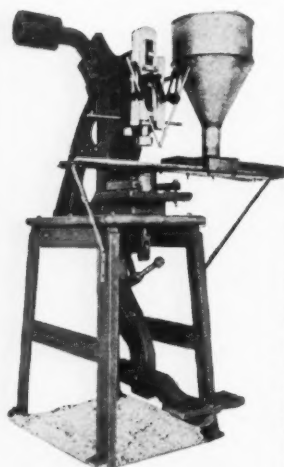
recording of all experiments and plant development with moving pictures to substantiate the claims of the firm that there is no plant damage in horticultural use if the product is applied according to directions. H. W. Baldwin, president of the company, in describing the



new laboratory facilities, stated that *Dwin* is now being sold in 43 states, although the current season is only the third for the product. The insecticide is manufactured with an odorless base and oil, and is perfumed with a light floral bouquet.

Dutch Exterminating Co., of Detroit, has relocated at 5011 Parker St.

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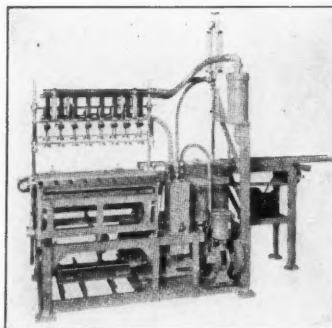
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PYRETHRUM AND DERRIS INVESTIGATION

(From Page 88)

elliptica, *Derris malaccensis* and a variety known as the Sumatra-type root. In *Derris elliptica* the rotenone content is higher with respect to ether extractives than it is in the case of *Derris malaccensis*, whereas in the Sumatra tupe rotenone cannot be separated by the Jones' technique(9) Cahn & Baum(10) however, have demonstrated its presence, even in this type of root, and refer to it as "hidden rotenone." The question arises, therefore, whether the methods at our disposal are adequate for the separation of the whole of the rotenone present. Despite Davidson's(11) estimate of the insecticidal activities of the chief crystalline compounds, so far isolated, rotenone, deguelin, tephrosin, toxicarol, as running in the order 400:40:10:1, there is a growing opinion, based largely upon the preparation of the "deguelin concentrate" by Haller & La Forge(12) upon the work of Clarke(13) of Takei(14) and of Cahn & Baum(15) that in active deguelin, tephrosin and toxicarol do not occur as such in *Derris* root to any serious extent, and that the determination of their toxicities is not a measure of the activities of their precursors. Dr. J. T. Martin and I, during the past year, have been attempting at Rothamsted to ascertain how far some of the published chemical methods gave results commensurate with the insecticidal value of seven samples of *Derris* of known origin.

We have had to limit ourselves to the use of one insect test-subject and we have successively tested upon it pairs of samples, the analytical values for which were known. We have found the statistical devices worked out by Hemmingsen(16) and Gaddum(17) and particularly the technique of your countryman, Dr. C. I. Bliss(18) of great use in expressing and analyzing our results. They cannot be regarded as more than preliminary, but they indicate that the methods of estimating rotenone, as they exist at present, of ether extract or methoxyl content cannot be relied upon to give correct comparative evaluations of all samples of *derris*. The comparative evaluations appear to be more accurate, if the pairs of samples belong to the same variety of root, than they do if they belong to different varieties. It has been our experience with these seven samples that the determination of the dehydro compounds by methods similar to those suggested by Takei, or of rotenone plus the dehydro compounds in the residual resin have given a better, if not entirely accurate assessment of the toxicity of *derris*, whether comparisons were made between samples of the same species of *derris*, or between samples of the different species of *Derris elliptica* or *Derris malaccensis*. The method of Takei would, however, seem susceptible of improvement and it has yet to be shown whether the results would be valid for the several species of *lonchocarpus* and for the sumatra type root.

I am greatly interested in the important recent work published by Campbell & Jones but I have not been able yet to give it the attention it deserves. In conclusion, I think it will be found necessary to ensure that agreed methods of sampling and grinding are adopted and that each method of analysis should comply with a standard technique. Before this can be done it will be necessary for many workers to bring their experience into the common stock.

Bibliography

1. Staudinger, H. & Ruzicka, L.—*Helv. Chim. Acta*, 7, 177, 1924.
2. Staudinger, H. & Harder, H.—*Acad. Sci. Fennicae*, A29, No. 18, 1-14, 1927.
3. Ripert, J.—*Bull. des Ann. des Fals.* No. 312, 1934.
4. Gnadinger, C. B. & Corl. C. S.—*J. Amer. Chem. Soc.* 51, 3054, 1929.
5. Tattersfield, F., Hobson, R. P. & Gimingham, C. T.—*J. Agr. Sci.* 19, 266, 1929.
6. Seil, H. A.—*Soap* 10, 89, 1934.
7. Ripert, J.—*loc. cit.*

8. Henderson, M. R.—*Malay. Agr. Jour.*, 22, 123, 1934.
9. Jones, H. A.—*Jour. Ind. & Eng. Chem. Anal. Ed.* 5, 23, 1933.
10. Cahn & Baum—*Jour. Soc. Chem. Ind.* 54, 377, 1935.
11. Davidson, W. M.—*Jour. Econ., Ent.* 23, 877, 1930.
12. Haller, H. L. & La Forge, F. B.—*Jour. Amer. Chem. Soc.* 56, 2415, 1934.
13. Clarke, E. P.—*Jour. Amer. Chem. Soc.* 53, 313, 1931.
14. Takei, S.—*Ber. Dent. Chem. Gesell.* 66, 1479 and 1826, 1933.
15. Cahn & Baum—*loc. cit.*
16. Hemmingsen—*Quart. Jour. Pharm.* 6, 39, 1933.
17. Gaddum—*Rept. Biol. Standards Med. Res. Council. Spec. Rept.*, No. 183, 1933.
18. Bliss, C. I.—*Ann. app. Biol.* 22, 134, 1935.

A RESUME OF INSECTICIDES

(From Page 95)

27. Cahn, R. S. and Boam, J. J. Determination of Rotenone. *Jour. Soc. Chem. Ind.* 54:37T-42T, 1935. (Abstract in *SOAP*, 11 (4):101, 1935.)
28. Etablissements Dupre et Cie. Insecticide. French Patent 769,445. (Abstract in *SOAP*, 11 (2):95, 1935.)
29. Ginsburg, J. M., et al. Toxicity of *Derris* Insecticides. *N. J. Agr. Expt. Sta. Bul.* 344:3-22, 1934. (Abstract in *SOAP*, 10 (12):103, 1935.)
30. Glasgow, H. Substitutes for Lead Arsenate in Cherry Fruit Fly Control. *Jour. Econ. Ent.* 28 (1):205-207, 1935.)
31. Howard, N. F., Brannon, L. W., and Mason, H. C. *Derris* and Other Insecticides for the Control of the Mexican Bean Beetle. *Jour. Econ. Ent.* 28:444-448, 1935.
32. Hutson, R. Strawberry Leaf Roller Control by Non-Poisonous Insecticides. *Jour. Econ. Ent.* 28 (2):388-390, 1935.
33. Jones, H. A., Campbell, F. L. and Sullivan, W. N. Relations Between Chemical Composition and Insecticidal Effectiveness of Rotenone-Bearing Plants. *Jour. Econ. Ent.* 28 (2):285-292, 1935.
34. List, G. M. and Sweetman, L. The Collection and Analysis of Data on the Value of Non-Arsenical Insecticides for the Control of Cabbage Worms. *Jour. Econ. Ent.* 28 (2):298-304, 1935.
35. Neiswander, C. R. Experiments in the Control of Two Greenhouse Mealybugs, *Phenacoccus gossypii* T. & Ck11. and *Pseudococcus citri* Risso. *Jour. Econ. Ent.* 28 (2):405-410, 1935.
36. Richardson, H. H. *Gladiolus* Thrips. *Jour. Agr. Research* 49:359-373, 1934. (Abstract in *SOAP*, 11 (2):103, 1935.)
37. Richardson, H. H. A Progress Report on the Insecticidal Control of the Mexican Mealybug (*Phenacoccus gossypii* T. and Ck11.) on Greenhouse Chrysanthemums. *Jour. Econ. Ent.* 28 (2):399-405, 1935.
38. Roark, R. C. Recent Advances in the Knowledge of *Derris* and Cube. *SOAP*, 11 (2):97, 99, 105, 107, 1935.
39. Roark, R. C. What is Cube? *SOAP*, 11 (4):95, 97, 99, 1935.
40. Tischler, N. Studies on How *Derris* Kills Insects. *Jour. Econ. Ent.* 28 (1):215, 1935.

Comparative determinations of rotenone in *derris* root by the Danckwortt or polarimetric and by the Roark or extraction methods showed in the majority of cases a higher yield of rotenone by the polarimetric procedure. In certain cases, however, the yield of rotenone by the polarimetric method was considerably lower than by the extraction method. As a result of these findings, caution should be used until one method is proved to be superior to the other. P. A. Rowaan. *Arch. Pharm.* 273, 237-8 (1935).

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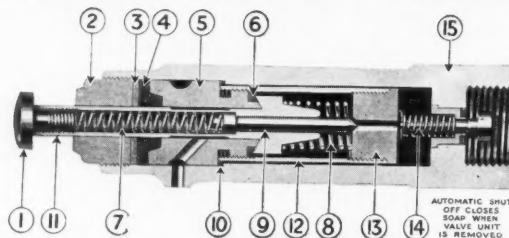
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NEW PRODUCTS

(From Page 28)

seem shelf bound. Others just happen to sell. Still others have quick turnover manufactured into them and are made to sell still faster by the choice of exactly the right package."

There is no known yardstick by which the sales value of a container can be accurately measured. However, the number of products that come into the market in one container only to be subsequently changed not only once, but occasionally a second and even a third time, indicates that a little more care in their selection in the first place would have been well directed.

Earlier it was stated that the size of the container should be determined, with rare exceptions, not by the cost of a little more or less bulk of contents, but by the number of applications it is desired to give per package. It follows then that every effort should be made to exaggerate the package size without resorting to out and out deception, such as putting a false bottom in a face powder box.

The commonly used containers are listed in descending order with regard to the degree to which they may be exaggerated, an opal glass jar, an opal glass bottle, a flint glass bottle, a flint glass jar, a jar made of plastic material, a paper box, a tin can, and a collapsible tube.

In choosing an opal jar, the first thing to avoid is the styles or shapes usually associated with prescriptions and with salves and ointments. This applies in a lesser degree when the choice is to be made between flint glass jars. Various samples, when placed side by side, after being filled with the product, render it easy to determine which of them looks the largest and is most pleasing in appearance.

Samples of different bottles in the desired capacity on being filled with the liquid they are to contain makes a choice easy. If the largest appearing bottle is not entirely pleasing to the eye, a new wood or paraffin mold can be made along similar lines which is pleasing in appearance. The present tendency toward simple cylindrical containers is a pleasing relief from the gaudy intricate shapes so long in vogue. They appeal particularly to the "upper crust" who do not have to take size into account. And what manufacturer does not take pride in the fact that his products are favored by the wealthy ladies who live in the best suburbs and make up the social register? Of course, this patronage is flattering, but this class unfortunately is both small and fickle. A manufacturer may feel it is a reflection on his package if it appeals to the girls in the shops and offices and who live in the hall rooms and cheaper neighborhoods. However, the money of this class is as good as anybody's, and this class makes up the overwhelming majority of his potential consumers.

Next to a sphere, a cylinder looks the smallest for its cubical contents and so does not lend itself to size

exaggeration. For this reason, it is likely that plain simple shapes may soon be abandoned again.

Boxes for face powder and other dry materials, in different shapes, but having the same capacity, can be assembled to choose the one that is seemingly the largest. As stated earlier, a false bottom should not be resorted to because the deception is observed by the user at the worst possible time, namely, at or about the time she is ready to purchase a new box. Padded tops on flat shallow boxes on which they look well also help to increase the apparent size and at the same time, by their softness to the touch may suggest that the contents is soft, velvety, and smooth.

Due to limitations in practical tin can manufacture, it is well to enlist the help of the can companies, when a metal can is used. Collapsible tubes continue to gain favor even though resort cannot be made to thick walls or unique or odd shapes in the endeavor to increase the apparent size or beautify the package. About the best that can be done is to take tubes of different diameters, then cut them off to the length which gives them the same capacity. When they have been stuffed with cotton or a paste and the end closed, a choice can be made.

It will be found that by changing even the shape and diameter of the cap on the chosen size tube it will look larger and more pleasing in appearance. The colors, as well as the design, of the decoration are not without their effect on the apparent size. Lengthwise stripes make the tube look smaller in diameter, annular rings increase the apparent diameter, and keeping the trade-mark directions and decorations well up to the head of the tube with the plain body color extending well up from the lower end tend to make the tube look longer.

(To be continued)

Disinfectants and insecticides are said to be in good demand in British Malaya, as practically every European home and a large number of the Oriental homes use liquids to control ants, cockroaches, mosquitoes, and other insects. The 1934 imports of liquid disinfectants and insecticides totaled 103,090 imperial gallons, representing an increase of 17 per cent in value over those of 1933. Entries from the United States totaled 6,613 gallons, as compared with 5,064 during 1933. About 75 per cent of the imports enter from the United Kingdom. While American prices are said to compare favorably with British prices, the business is said to go largely to British firms because of their intensive advertising.

Insects are destroyed in a closed space such as a room by steam-atomizing a solution of the active principle of pyrethrum. A jet of steam is directed into the space and the pyrethrum solution introduced into the steam jet. In this way the active product is diffused through the room. The O. & W. Thum Co. (Tanglefoot) Canadian Patent No. 350,294.

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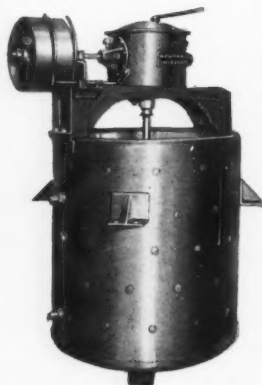
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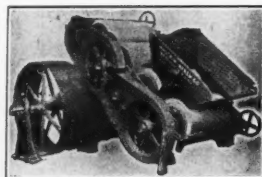
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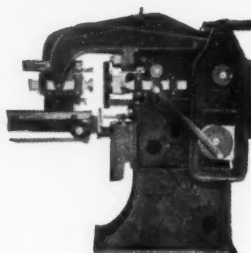


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(From Page 90)

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KENYA PYRETHRUM PLANTERS MEET

A meeting of pyrethrum planters, after hearing an address by the London expert, E. W. Bovill, a director of R. C. Treatt & Co., decided that the outlook justified a considerable extension of acreage for the purpose of endeavoring to oust Japan from the position of premier world supplier. Mr. Bovill told the planters at Nairobi that Japan exported about 6,000 tons annually, the bulk of which went to America and Americans welcomed developments in Kenya in view of the uncertainty caused by speculation in the Japanese crop and unreliable crop reports.

"The content of Kenya pyrethrum," added Mr. Bovill, "is higher than that of the Japanese and there should be no difficulty in guaranteeing a standard quality." He emphasized the importance of cooperative marketing and advised planters not to attempt to enter the manufacturing field.

Robert R. Wason has been elected president of Zonite Products Corp., following the resignation of Ellery W. Mann as president and member of the board of directors. Zonite Products Corp. showed a net loss of \$164,390 for 1934, as against a net income of \$371,552 in the year previous. In a statement by E. F. Hutton, chairman of the board, the loss is attributed to the company's subsidiary, Tower Wines & Spirits Corp., as it is pointed out that the company's regular drug business showed a profit of \$157,467 for 1934, the loss being sustained in connection with sale of wine and spirits. Another change in the organization has been made known with the resignation of George A. Mott as advertising manager.

Edgar A. Murray Co., Detroit, recently introduced two new members of the "Doom" line of insecticides—"Ant Doom" for lawns, and "Garden Spray Doom". A free goods deal to retailers is being used to launch the new products.

Frazier Supply Co., janitors' supplies, Kansas City, Mo., moved recently to new offices at 826 East 14th St.



THE cleaning and polishing of woodwork, floors and furniture is an activity that goes on in every home and it calls for floor oils, liquid waxes, furniture polish and cleaners. Such household supplies are best packaged in attractive glass containers under attractive, convenient Anchor Amerseal Caps. It's hard to beat that combination for creating a sales-appealing and satisfaction-giving package. First sales come easier, repeat sales come surer. For the very good reason that the Anchor Amerseal Cap gives a completely tight, leak-proof seal as well as unparalleled convenience. May we prove these two statements to your satisfaction by sending you complete information?

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CINCINNATI • CLEVELAND • DENVER • DETROIT
HOUSTON • LOS ANGELES • LOUISVILLE
MONTREAL • NEW YORK • PHILADELPHIA
PITTSBURGH • ROCHESTER • ST. LOUIS
SAN FRANCISCO • SEATTLE • TORONTO

ANCHOR-CAPSTAN
★ GLASS CONTAINERS ★ CLOSURES
★ SEALING EQUIPMENT
★ RESEARCH ★ PACKAGE DESIGN
5 STAR SERVICE

Anchor Amerseals

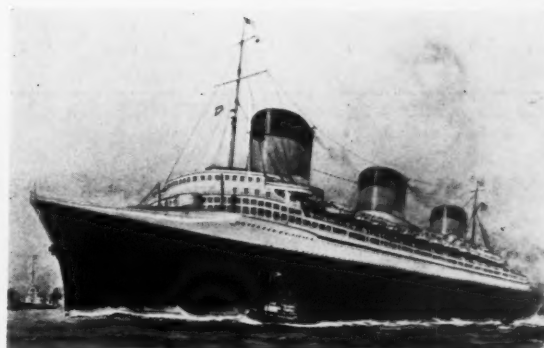
ANACO—NEW SANITARY SUPPLY HOUSE

Anaco, Inc., Long Island City, N. Y., is a new sanitary supply company formed by M. Ellis, formerly for fifteen years vice-president and manager of sales for the Creco Company, also of Long Island City. The new firm occupies the entire building at 29-26 40th Road, Long Island City, where it is manufacturing a complete line of sanitary materials and equipment, including disinfectants, liquid soaps, polishes, floor materials, soap systems and allied products, according to Mr. Ellis, who has been associated with the sanitary specialty business for 26 years.

Hubman Supply Co., sanitary products, Columbus, Ohio, moved its plant and offices, July 1, to new quarters at 225 North 4th St. At the new address the company occupies a complete building of four floors comprising 18,000 square feet of space. New equipment is being installed to add to productive capacity, and a number of additional chemical specialty items will be added to the company's line. At present, soaps, disinfectants, insecticides and cleaners are manufactured.

The most popular odors among women, according to *World's Work* which published the results of a questionnaire recently, are given in order of preference. The results were stated to be based on a large cross-section of women readers and are as follows: 1. Rose and Lily of the Valley; 2. Lilac and Pine; 3. Balsam; 4. Coffee;

5. Strawberry; 6. Raspberry; 7. Violet; 8. Cedar; 9. Pineapple; 10. Apple and Vanilla; 11. Wintergreen, Chocolate, Carnation; 12. Orange and Cinnamon; 13. Lavender; 14. Clove and Peppermint.



"Pur-O-Oil" wall containers and deodorizing blocks, made by Deco Products Co., New York, are standard equipment on the new French liner S. S. Normandie, which arrived in New York on her maiden voyage early in June. A new chromium plated wall container was designed by Deco Products for use on the Normandie and this new model will in the future be carried as a stock item.



Why not have your own personal copy of SOAP every month? . . . delivered to your home or desk . . . the cost is small and the service is great.

Annual Subscription: \$3.00



MACNAIR-DORLAND CO., INC.

Publishers

254 W. 31st STREET

NEW YORK

The 1935 SOAP BLUE BOOK

Contents



REFERENCE SECTION

How to Buy Sanitary Products—A symposium prepared by leading producers, giving standards for comparative evaluation of various types of powdered soaps, soap powders, scouring powders, liquid soaps, deodorizing blocks, metal polish, floor products, and coal-tar, pine oil and chlorine disinfectants. The buyer is given simple and easily applicable standards to guide him in the choice of products, and is warned of signs indicating low quality.

Soap Plant Design—Suggestions on plant layout, together with instructions for batch calculation. Accompanied by tabular material listing oil constants, saponification percentages, etc.

Trisodium Phosphate Detergents—A review of the composition of various type TSP cleansers, dishwashing compounds, scrubbing compounds, etc.

Federal Specifications for thirty soaps, chemicals, polishes, sanitary products, etc.

Peet-Grady Test for Household Insecticides—Complete revised official text.

F. D. A. Test for Disinfectants and Antiseptics.

BUYERS' GUIDE SECTION

A complete list of everything manufacturers and jobbers of soaps and sanitary products buy—raw materials, containers, machinery, bulk and private brand products, etc.—with "first hand" sources of supply for each. There are lists of suppliers of 428 separate items with cross references for several hundred more.

CATALOG SECTION

Sixty of the leading firms selling to the soap and sanitary product industries have filed their condensed catalogs in the Blue Book for ready reference. Catalog page numbers are given with all of their listings in the Buyers' Guide Section.

The SOAP BLUE BOOK is sent free to every SOAP subscriber while the supply lasts. Annual charges for 12 monthly issues of SOAP plus the BLUE BOOK are \$3.00, Domestic; \$5.00 in Canada; \$4.00 in other Foreign Countries.

MAC NAIR - DORLAND COMPANY, INC.

Publishers

254 WEST 31st STREET

NEW YORK CITY

CLASSIFIED ADVERTISING

Classified Advertising—All classified advertisements will be charged for at the rate of ten cents per word, \$2.00 minimum, except those of individuals seeking employment where the rate is five cents per word, \$1.00 minimum. Address all replies to Classified Advertisements with Box Number, care of *Soap*, 254 West 31st St., New York.

Note: All advertisements must be in publisher's hands by the first of the month for that month's issue.

Positions Wanted

Soapmaker—Many years' experience in the manufacturing of all soda and potash soaps, desires position as kettleman in larger soap plant. Address Box No. 595, care *Soap*.

Cost Accountant—Eight years' experience, toilet soaps, soap flakes, powders, perfumes and chemicals. Familiar with all operations in factory accounting departments; also some sales experience. Address Box No. 591, care *Soap*.

Insecticides—Plant superintendent and chemist who has had twenty years' experience in manufacturing insecticides and ten years' experience with biological and chemical control of leading fly spray manufacturer, seeks new connection. Highest references. Address Box No. 600, care *Soap*.

Wanted—Young woman chemist with practical experience in oils and fats and laboratory routine in these products, wishes position. Is willing to start at the bottom in soap or oil and fat laboratory. Also stenographer. Address Box No. 572, care *Soap*.

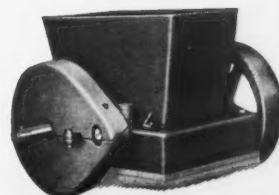
Superintendent and Soapmaker—Can make and analyze all kinds of soap and soap material. Address Box No. 583, care *Soap*.

Soapmaker—Reliable, 16 years' experience in textile soaps, laundry chips and bars, oil soaps, specialty soaps, etc. Seeks permanent connection. Address Box No. 594, care *Soap*.

Soapmaker—Twenty years' experience. Can make and analyze all kinds of soaps and products. Salary reasonable and hard worker. Address Box No. 597, care *Soap*.

BLANCHARD

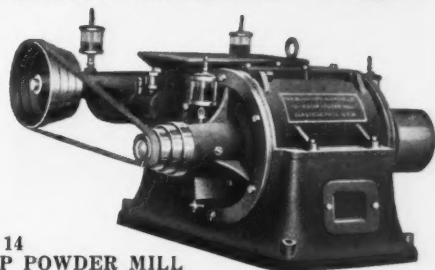
SOAP POWDER MACHINERY



NO. 9 CRUSHER



NO. 10-A SOAP POWDER MILL



NO. 14 SOAP POWDER MILL

WRITE FOR OUR DESCRIPTIVE CIRCULARS

THE BLANCHARD MACHINE COMPANY
14 STATE ST. CAMBRIDGE, MASS., U. S. A.

SOAP MACHINERY

Every item shipped from our shops at Newark, N. J., is thoroughly overhauled and rebuilt before shipment.

SPECIALS

- 1—Soap Chip Dryer, 1200 lb.
- 2—Dopp 650 gal. Steam Jacketed Kettles.
- 1—Dopp 1200 lb. Steam Jacketed Crutcher.
- 1—Hershey 1000 lb. Horizontal Jacketed Crutcher.
- 1—1000 lb. All Steel Soap Powder Mixer.
- 2—Holmes & Blanchard 24" and 36" 4 cage Disintegrators, for grinding soap powder—no screens, no plugging.
- 25—Soap Frames, 60"x45½"x14", with trucks
- 6—Plodders, Houchin, Rutschman, 4", 4½" double screw, 6", 8", 10".
- 14—Filter Presses, 42"x42" to 12"x12".
- 8—Granite Mills, 3 and 4 roll, 12", 18" and 24".
- 15—Horizontal Mixers, Jacketed and Plain, 15 gal. to 1000 gal.

MISCELLANEOUS—Kettles, Mixers, Pony Mixers, Powder Fillers, Tube Fillers, Labelers, Soap Presses, Soap Wrappers, Tanks, Boilers, Pumps, etc.

Send for Latest Bulletin.

CONSOLIDATED PRODUCTS COMPANY, INC.

15-21 Park Row, N. Y. C. Barclay 7-0600

We buy your idle Machinery—Sing'e items or entire plants.

MECHLING'S SILICATE OF SODA

ESTABLISHED 1869

MECHLING BROS. CHEMICAL COMPANY
PHILADELPHIA • CAMDEN, N.J. BOSTON, MASS.

A New Source For

TRI-SODIUM PHOSPHATE

The Tidewater division of the American Chemical Paint Company has developed and now **manufactures** a new type free-flowing Tri-Sodium Phosphate which is furnished in standard T.S.P. Containers. A sample and a quotation on your requirements will be furnished on request.

TRISILA

A new alkaline detergent for use with all soaps and cleansers is also manufactured by this company. Samples and prices on request.



AMERICAN CHEMICAL PAINT CO.

TIDEWATER DIVISION

New Castle, Delaware

Traveling Men Prefer the

LORD BALTIMORE HOTEL

In Parlor Car or Club, wherever commercial travelers gather, you'll hear someone recall his last stay at Lord Baltimore Hotel with pride. Restful comfort, and fine food - all at moderate rates
H. N. BUSICK
Managing Director

700 Rooms with Bath and Radio

FROM \$3 SINGLE

BALTIMORE
MARYLAND

OUR RESTAURANTS
EQUIPPED TO SERVE
3000 PEOPLE DAILY



GARAGE ATTENDANT
WILL TAKE YOUR
CAR AT THE DOOR

MODERN COSMETICS

Four hundred pages of practical, usable information for the manufacturer of cosmetics. Complete and authoritative, the result of more than a year's work carefully compiling and checking information. This is the first practical manual for the manufacturer, covering every phase of cosmetic manufacturing. A valuable reference book, yet it is written so clearly and with a minimum use of technical terms that it will be found particularly valuable to the manufacturer with limited technical training.

Price - Six Dollars - Order from

MAC NAIR-DORLAND COMPANY, Inc.

136 LIBERTY STREET

NEW YORK CITY

POSITIONS OPEN

A Prominent Manufacturer of liquid soaps, disinfectants, deodorizing cakes, etc., has an opening for a dependable sales representative. Address Box No. 596, care *Soap*.

Wanted—A firm mining Wyoming Bentonite wants to get in touch with a technical man who has had experience in incorporating Bentonite in soap. Confidential correspondence solicited. Address The Wyodak Chemical Co., Station D, Cleveland, O.

Miscellaneous

Attention Disinfectant Manufacturers—Want to know the whereabouts of L. R. Smith, disinfectant salesman. Kindly communicate with Box No. 590, care *Soap*.

Wanted—One ten or fifteen horsepower vertical, fire tube-gas fired steam boiler, capable of generating steam at a pressure of one hundred pounds per square inch. Boiler preferably should be equipped with an automatic water feed capable of operating against back pressures of one hundred pounds per square inch. One jacketed copper kettle, high jacket form, capacity one hundred and fifty to two hundred gallons. State whether the kettle is equipped with or without an agitator and location of all openings and outlets. Send complete description of the above items to Box No. 592, care *Soap*.

For Sale—150 gallon Dopp steam jacketed kettle. Skat Company, Hartford, Conn.

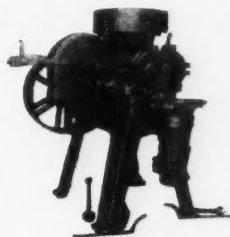
For Sale—Soap factory on Pacific Coast with six large kettles and power plant, now making bulk chips and powders and limited amount of toilet soap. Complete oil refinery connected with factory. Railroad siding and ample storage facilities. Can be purchased at a bargain. Owner desires to retire from business. Address Box No. 589, care *Soap*.

Distributor — Finest oil, liquid, hard soap; polishes. Baum's, Rome, N. Y.

Floor Brushes — We manufacture a very complete line. Catalogue sent upon request. Flour City Brush Company, Minneapolis, Minn.

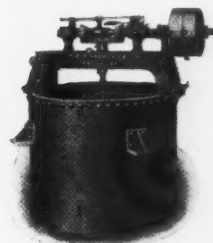
In The Long Run

You often find that the "cheapest" machinery is really the most expensive. Huber soap machinery is built to last—no heavy repair bills or costly breakdowns to pile up costs.



Makers of the famous Rutchman plodders and mills. These sturdy machines have been in use in soap factories all over the country since 1860. None better.

We were the first to build the Perfection Type Crutcher, electrically driven, and many users think we are still first in its manufacture. We also produce a handy dry mixer for cleaners, powders, sweeping compounds, etc.



HUBER MACHINE CO.

265 46th St., Brooklyn, N. Y.

**"MOPCO" 65%
BOILED DOWN
COTTONSEED SOAP**

ALSO SPOT AND FUTURE SHIPMENTS

**RAPSEED OIL
TEASEED OIL
HEMPSEED OIL**



FISH OIL FATTY ACIDS

MURRAY
OIL PRODUCTS CO.
INCORPORATED
21 WEST ST., NEW YORK



F. & S.

**Quality Colors
for**

**TOILET SOAPS
LIQUID SOAPS**

TOILET PREPARATIONS

Long experience enables us to produce colors for all types of soaps.

If you have a shade you want matched send us a sample. We have complete facilities for matching.

Liquid soap colors a specialty—send for samples of F. & S. greens and ambers.

FEZANDIE & SPERRLE, Inc.

**205 FULTON STREET
NEW YORK, N. Y.**

Import—Manufacture—Export



We manufacture a complete line of high quality waxes for the jobbing trade, including no-rubbing liquid wax, regular type liquid wax, powdered wax, paste wax and also furniture polish. These products can be supplied in bulk, packaged under the Windsor label or with your own label which we supply.

**WINDSOR
WAX COMPANY**

53 PARK PL. New York N.Y.

factory
611 Newark St. Hoboken N. J.

Manufacturers of
WAX PRODUCTS EXCLUSIVELY



We announce development of new type soap colors

PYLAKLORS

They have good fastness to alkali, light, tin, ageing.

The following shades are already available:

Bright Green	Dark Brown
Olive Green	Palm Green
Yellow	Golden Brown
True Blue	Violet

*It will pay you to send
for testing samples.*

PYLAM PRODUCTS CO., INC.

Manufacturing Chemists, Importers, Exporters

799 Greenwich St. New York City

Cable Address: "Pylamco"

**What is the U. S. Specification
for
MECHANICS' HAND SOAP?**

Your BLUE BOOK will give you the official U. S. Government requirements on 26 common soap and sanitary products. Auto Soap, Chip Soap, Grit Soap, Liquid Laundry Soap, Powdered Laundry Soap, Soap Powder, Salt-Water Soap, White Floating Soap, Liquid Soap, Caustic Soda, Laundry Soda, Sweeping Compound, Metal Polish, Silver Polish, Stove Polish, Scouring Powder, T S P, Soda Ash, Sodium Cyanide, Sodium Fluoride, Insect Powder.

Consult your BLUE BOOK!

Free to SOAP Subscribers

For Sale—Practically new Schlemmer Wrapping Machine. Skat Co., Hartford, Conn.

Formulas and Short-Cuts—Assistance in manufacturing difficulties offered by practical soapmaker and chemist with over 20 years' experience. Soaps of every description from toilet to laundry soaps, from shaving cream to soap powder, also insecticides and self-polishing wax. Address Box No. 599, care *Soap*.

For Sale—15 Soap Frames on trucks; 1 No. 10 Blanchard Grinder; 1 Copper Kettle, 3 ft. x 7 ft. with coils; 1 Hand Tube Filler; Electric Motors. Address The J. P. S. Chemical Co., 702 E. Grand River Ave., Lansing, Mich.

To determine perborate in soap powder, place about 5 grams of sample powder in a separatory funnel with 30 cc. of 2 N sulfuric acid. Add 100 cc. of water and 10 cc. of chloroform. Shake and remove the chloroform layer containing the fatty acids. Treat the aqueous liquid with 20 cc. of 2 N sulfuric acid and titrate with standard permanganate solution. An iodometric method is less suitable. J. R. N. van Kregten. *Chem. Weekblad* 32, 81-3 (1935).

Bulk~

Shampoo Bases

Liquid Soap Base

Green Soft Soaps

Liquid Shampoos

Liquid Toilet Soaps

Scrubbing Soaps

For Repacking and Jobbing 55
years' experience assures satisfaction.

GEO. A. SCHMIDT CO.

Manufacturers of **SOAPS** of Every Description

236-238 West North Avenue.
Chicago.

IONONE IN SOAP PERFUMERY

Commercial 100 per cent ionone is occasionally employed alone for perfuming soap, but the results are hardly satisfactory, even though the ionones are stable in the presence of alkalies. Ionone residues, being cheap, are used in some cases for soap perfuming, but there is always the difficulty of different odor values in different batches. About 0.1 per cent of the ionone residues is generally sufficient, together with a strengthening perfume base such as orris root, or for cheaper soaps, terpineol. Synthetic cassie extract and benzyl acetate are also useful. Other bodies used in conjunction with ionones in soap perfumery are petitgrain, clove, bergamot, cedarwood, orris oleo-resins, sandalwood, neroli and cananga oil. Musk-ambrette and benzoin are the chief fixatives. Harold Silman. *Perfumery and Essential Oil Rec.* 26, 121 (1935).

S. C. Johnson & Co., Racine, Wis., are currently using a mechanical salesman to boost sales of their floor products in department stores. The mechanical figure, operated by remote control, sings, smokes, and tells his sales story, interspersed between comments on matters of general public interest. The set-up is supplied to department stores by Johnson & Co. on condition that they advertise and feature the display, and place an order of sufficient size for Johnson products so that extra sales can be taken care of.

NEW AND REBUILT SOAP MACHINERY

SPECIAL

2—Glycerine Evaporators, double and triple effect

- 3—3 and 5 Roll Steel Mills
- 1—10" Houchin-Aiken Plodder
- 1—Automatic Power Cutting Table
- 1—Broughton Mixer, jacketed
- 2—10A Blanchard Mills
- 3—Soap Presses, Foot and Power
- 6—Filter Presses, sizes 6" to 36"
- 6—Granite Stone Mills, 2, 3, and 4 rolls
- 1—Jones Automatic Soap Press
- 4—Jacketed Vertical Crutchers
- 2—1,500 lb. Horizontal Crutchers
- 2—Hand Power Slabbers
- 2—Hand Power Cutting Tables
- 3—Houchin Chippers, Belt Driven

600 and 1,200 lb. Frames, Kettles, Pumps, Tanks, Filter Presses, Wrapping Machines, Tube Fillers, Closers, Crimpers, Dry Powder Mixers, Pulverizers, Grinders, Amalgamators, Mixers, etc.

Send for Complete List (Bulletin No. 15)

WE BUY AND SELL FROM SINGLE ITEMS
TO COMPLETE PLANTS.

STEIN-BRILL
(CORPORATION)

183 VARICK STREET

Phone:
Walker 5-6892-3-4

NEW YORK, N. Y.

Cable Address:
"BRISTEN"

Where to buy

RAW MATERIALS AND EQUIPMENT

for the Manufacture of Soaps and Sanitary Products

NOTE: This is a classified list of the companies which advertise regularly in SOAP. It will aid you in locating advertisements of raw materials, bulk and private brand products, equipment, packaging materials, etc., in which you are particularly interested. Refer to the Index to Advertisements, on page 130, for page numbers, "Say you saw it in SOAP."

ALKALIES

Columbia Alkali Co.
T. G. Cooper & Co.
Dow Chemical Co.
Eastern Industries
Hooker Electrochemical Co.
Innis, Speiden & Co.
Niagara Alkali Co.
Solvay Sales Corp.
Jos. Turner & Co.
Warner Chemical Co.
Welch, Holme & Clark Co.

Hooker Electrochemical Co.
Industrial Chemical Sales Co.
Innis, Speiden & Co.
Mechling Bros. Chemical Co.
Merck & Co.
Monsanto Chemical Co.
Niagara Alkali Co.
Ore & Chemical Corp.
Philadelphia Quartz Co.
Solvay Sales Corp.
Standard Silicate Co.
Jos. Turner & Co.
Victor Chemical Works
Warner Chemical Co.
Welch, Holme & Clark Co.

AROMATIC CHEMICALS

American-British Chemical Supplies
Compagnie Parento
Dodge & Olcott Co.
Dow Chemical Co.
P. R. Dreyer, Inc.
E. I. du Pont de Nemours & Co.
Felton Chemical Co.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.
Magnus, Mabee & Reynard, Inc.
Merck & Co.
Monsanto Chemical Co.
Naugatuck Chemical Co.
Schimmel & Co.
Solvay Sales Corp.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.

COAL TAR RAW MATERIALS

(Cresylic Acid, Tar Acid Oil, etc.)

American-British Chemical Supplies
Baird & McGuire, Inc.
Barrett Co.
T. G. Cooper & Co.
Innis, Speiden & Co.
Koppers Products Co.
Monsanto Chemical Co.
Reilly Tar & Chemical Co.
White Tar Co.

COLORS

Fezandie & Sperrle
Pylam Products Co.

BULK AND PRIVATE BRAND PRODUCTS

An-Fo Manufacturing Co.
Baird & McGuire, Inc.
Chicago Sanitary Products Co.
Clifton Chemical Co.
Davies-Young Soap Co.
Eagle Soap Corp.
Federal Varnish Co.
Fuld Bros.
Hammond Paint & Chemical Co.
Harley Soap Co.
Hysan Products Co.
Hull Co.
Koppers Products Co.
Kranich Soap Co.
Palmer Products
Philadelphia Quartz Co.
John Powell & Co.
Geo. A. Schmidt & Co.
White Tar Co.
Windsor Wax Co.

CONTAINERS and CLOSURES

American Can Co. (Tin Cans, Steel Pails)
Anchor Cap & Closure Corp. (Closures & Bottles)
Cin-Made Corp. (Paper Cans)
Continental Can Co. (Tin Cans)
Hinde & Dauch (Corrugated Fibre Products)
Maryland Glass Corp. (Bottles)
National Can Co. (Tin Cans)
Owens-Illinois Glass Co. (Bottles)
Wm. Vogel & Bro. (Tin Cans)
Wilson & Bennett Mfg. Co. (Steel Pails and Drums)

DEODORIZING BLOCK HOLDERS

Cin-Made Corp. (Paper)
Clifton Chemical Co.
Eagle Soap Corp.
Fuld Bros.
Hysan Products Co.
Palmer Products, Inc.

CHEMICALS

American-British Chemical Supplies
Bowker Chemical Co.
Columbia Alkali Co.
T. G. Cooper & Co.
Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Eastern Industries
General Chemical Co.
Grasselli Chemical Co.

ESSENTIAL OILS

Compagnie Parento
Dodge & Olcott Co.
P. R. Dreyer, Inc.
Fritzsche Brothers, Inc.
Leghorn Trading Co.
Magnus, Mabee & Reynard, Inc.
Schimmel & Co.
A. M. Todd Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.

(Continued on page 128)

PROFESSIONAL DIRECTORY

PEASE LABORATORIES, Inc.

Chemists, Bacteriologists, Sanitarians

39 West 38th Street
New York

Food, Drug and Cosmetic Problems—Compliance with
Official Requirements—Meeting New and Anticipated
Competitions with Improved and New Products

H. A. SEIL, Ph.D

E. B. PUTT, Ph.C., B.Sc.

SEIL, PUTT & RUSBY, INC.

Analytical and Consulting Chemists

Specialists in the Analysis of Pyrethrum Flowers, Derris Root,
Barbasco, or Cube Root—Their Concentrates
and Finished Preparations

ESSENTIAL OILS SOAP
16 East 34th Street, New York, N. Y.

STILLWELL AND GLADDING, Inc.

Analytical and Consulting Chemists

Members Association of

Consulting Chemists and Chemical Engineers

130 Cedar Street New York City

LLOYD A. HALL

Analytical and Consulting Chemist

Specializing in the analysis, development, investigation,
and improvement of

Soaps, Disinfectants, Cosmetics, Drugs, Polishes and
Sanitary Specialties.

RESEARCH—CONSULTATION

1415 W. 37th STREET

CHICAGO, ILL.

KILLING

strength of Insecticides

by PEET GRADY METHOD

(Official I. & D. code method) and
PYRETHRINS in PYRETHRUM FLOWERS
(by Gnadinger's Method)

We raised and killed more than 1 million flies in the last 2 years

ILLINOIS CHEMICAL LABORATORIES, INC.
75 E. WACKER DRIVE CHICAGO, ILL.

COST SYSTEMS

Designed and installed for Soap Manufacturers and allied
industries. Service in—Cost Analysis—Federal Taxation—
Audits and Financial Statements.

TWENTY-FIVE YEARS' EXPERIENCE

LOUIS J. MUEHLE & COMPANY

CERTIFIED PUBLIC ACCOUNTANTS

DES MOINES

IOWA

Skinner & Sherman, Inc.

246 Stuart Street, Boston, Mass.

Bacteriologists and Chemists

Disinfectants tested for germicidal value or phenol co-
efficient by any of the recognized methods.

Research—Analyses—Tests

SOAPS — DETERGENTS

*Analyses Development
Consultation Formulas*

Hochstadter Laboratories

INCORPORATED

254 West 31st St.

New York City

Entomological Testing Laboratories, Inc.

We offer you a medium for purchasing insecticides
on an intelligent basis.

Entomological testing by the Peet-Grady method, and
chemical examination of insecticides are available.

114 E. 32nd St.

New York, N. Y.

Protect Your Products by

Patents—Trade Marks

All inventions submitted held confidential and given personal atten-
tion by members of the firm.

Form "Evidence of Conception" and instructions "How to Establish
Your Rights"—Free

LANCASTER, ALLWINE & ROMMEL

Patent Law Offices

420 Bowen Building

Washington, D. C.

A disinfectant must meet definite standards. If any change is made in a formula which was previously satisfactory, it may no longer meet this standard. We frequently advise clients as to the changes to make in their formulas and at the same time check the kill against B. Typhosus or Staphylococcus Aureus to make sure that the standard is met.

Foster D. Snell, Inc.
Chemists—Engineers
305 Washington St.,
Brooklyn, N. Y.

RAW MATERIAL AND EQUIPMENT GUIDE

(Continued from page 126)

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MACHINERY

Battle Creek Wrapping Machine Co. (Packaging Machinery)
Blanchard Machine Co. (Soap Powder)
Ertel Engineering Corp. (Filters, Mixers, Bottle Fillers)
Anthony J. Fries (Soap Dies)
Houchin Machinery Co. (Soap Machinery)
Huber Machine Co. (Soap Machinery)
International Nickel Co. (Monel Metal)
R. A. Jones & Co. (Automatic Soap Presses and Cartoning Machinery)
Package Machinery Co. (Packaging)
Proctor & Schwartz (Dryers)
C. G. Sargent's Sons Corp. (Dryers)
Stokes & Smith Co. (Packing Machinery)
U. S. Bottlers Machinery Co. (Bottle Filling and Cleaning)

MACHINERY, USED

Consolidated Products Co.
Newman Tallow & Soap Machinery Co.
Stein-Brill Co.

MISCELLANEOUS

Anchor Cap & Closure Corp. (Metal Caps)
T. G. Cooper & Co. (Waxes)
Dobbins Mfg. Co. (Pails, Mop Wringers, etc.)
Exterminating Materials Co.
General Naval Stores Co. (Pine Oil-Rosin)
Hercules Powder Co. (Pine Oil and Rosin)
Industrial Chemical Sales Co. (Decol. carbon, Chalk)
Innis, Speiden & Co. (Fumigants and Waxes)
Murray & Nickell Mfg. Co. (Moth Proofing Liquid)
Pylam Products Co. (Lathering Agent)
Rohm & Haas Co. (Insecticide Base)

OILS AND FATS

T. G. Cooper & Co.
Eastern Industries
Industrial Chemical Sales Co.
Leghorn Trading Co.
Murray Oil Products Co.
Newman Tallow & Soap Machinery Co.
Theobald Animal By-Products Refinery
United Africa Co.
Welch, Holme & Clark Co.

PARADICHLORBENZENE

Dow Chemical Co.
E. I. du Pont de Nemours & Co.
Hooker Electrochemical Co.
Merck & Co.
Monsanto Chemical Co.
Niagara Alkali Co.
Solvay Sales Corp.
Jos. Turner & Co.

PERFUMING COMPOUNDS

Compagnie Parento
Dodge & Olcott Co.
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Felton Chemical Corp.
Fritzsche Brothers, Inc.
Givaudan-Delawanna, Inc.

Magnus, Mabey & Reynard, Inc.
Schimmel & Co.
Ungerer & Co.
Van Ameringen-Haebler, Inc.

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Sherwood Petroleum Co.
L. Sonneborn Sons.

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John Powell & Co.
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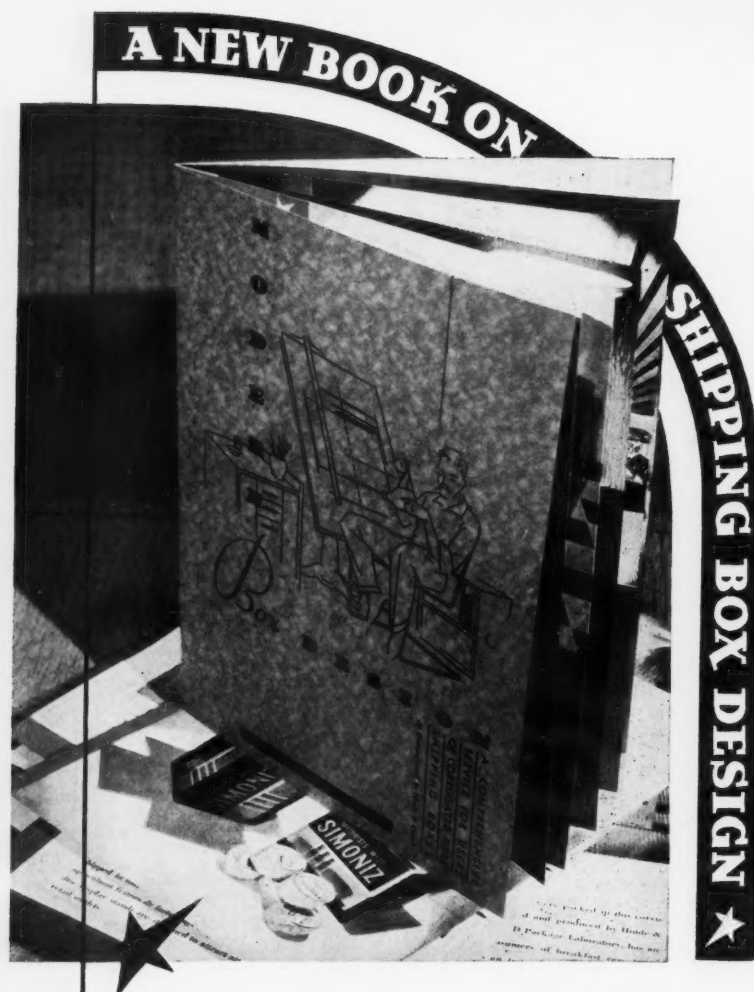
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Short Story

(With Apologies to Esquire)

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